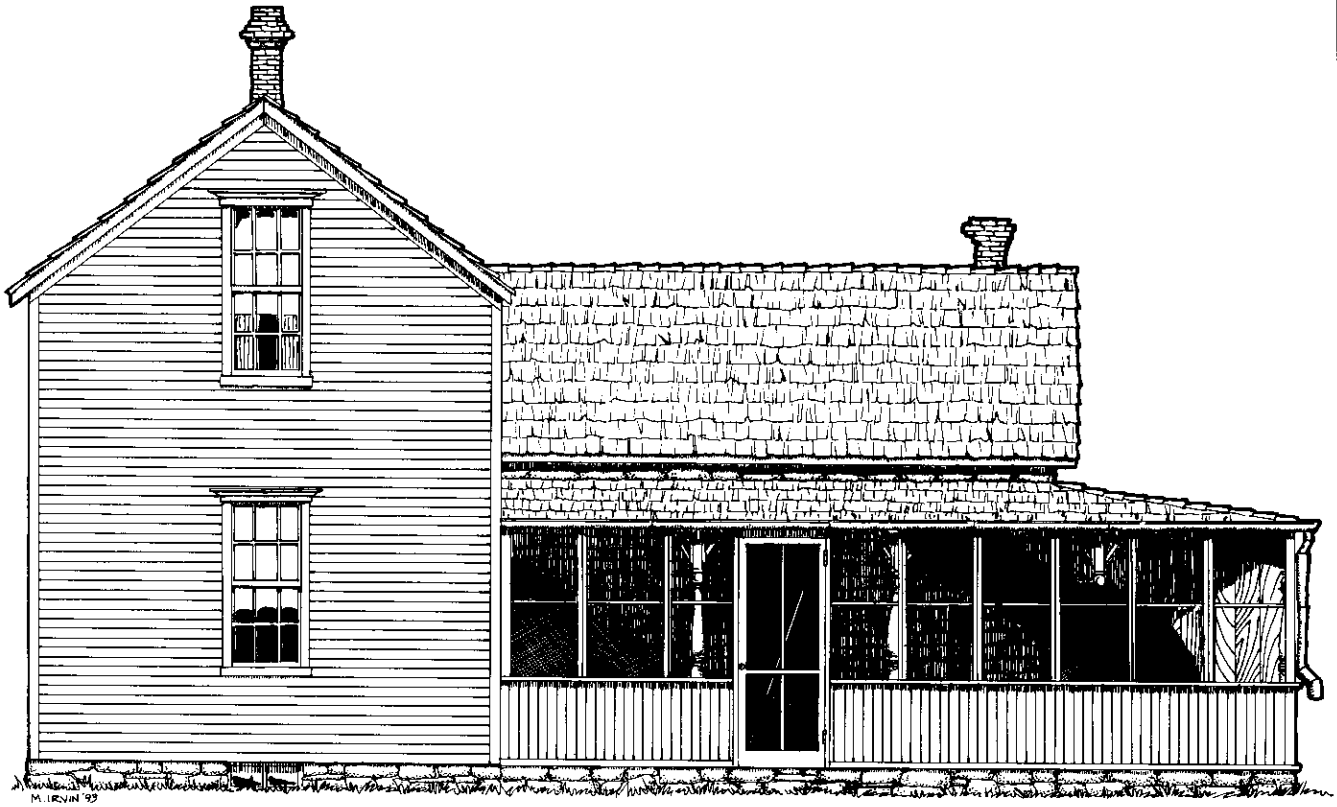
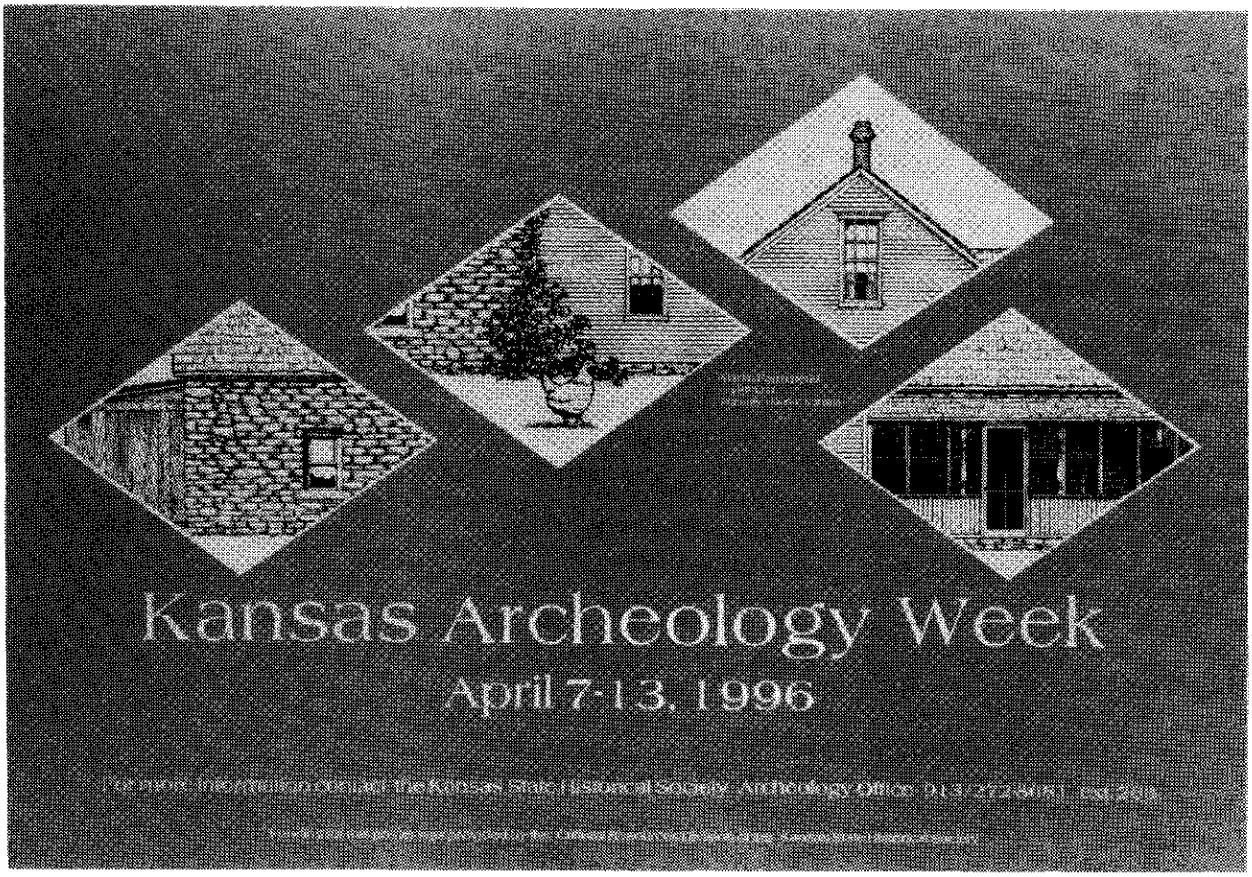
UNIT THREE

MARTIN FARMSTEAD



UNIT THREE: MARTIN FARMSTEAD



INTRODUCTION

This week's unit of study is arranged with special projects and daily features. Choose as many as you like. They all relate to one another. The main project, House Model, will make the farmhouse more real and will enhance students' learning, so please consider it as the primary project for the unit. Also, because historical archeology pursues multiple lines of inquiry, your daily plan should cover at least one selection from each of the three lines presented here: archeology (An Archeologist Says, X-Units), informant (Florence Remembers), and history (Time Line, Farm Records, Now Isn't That Strange?). The bookmark template and Handout #3: New School Shoes follow on pages 90-94. Sources and glossary are at the end of the book.

Projects
- House Model
- Weather/Crop Diary
- Milking Stool
- Paper Dolls

Day-by-Day
- Worksheet/Activities/Vocabulary
- Reading
- Florence Remembers
- Time Line
- Farm Records
- The Farm Families
- Farm Talk
- An Archeologist Says
- X-Units
- Now Isn't That Strange?
- Bookmark

Getting Ready	The Week Before
Reading	"A Place to Call Home . . ."
Project	House Model
Time Line	Cultural Sequence of Kansas
The Farm Families	"The Families"
An Archeologist Says	Archeology Team

Day One	Building Up
Worksheet/Activities/Vocabulary	1923 Richland Township Map
Reading	"Little Patch of Prairie"
Florence Remembers	School, Rose and Kit, and the "Dark Dungeon"
Time Line	Family Farm
Farm Records	The Klima Years
The Farm Families	The Klimas
Farm Talk	Market and Weather Reports
An Archeologist Says	Site 14RP322 and Historical Archeology
X-Units	32 Holes in the Ground
Now Isn't That Strange?	Sunflowers
Bookmark #1	Shelter

Day Two	Adding On
Worksheet/Activities/Vocabulary	Butter and Eggs
Reading	"In the Smoky Hills"
Florence Remembers	Good Food
Time Line	A Busy Summer's Day
Farm Records	The Lang Years
The Farm Families	The Langs
Farm Talk	Farm Animals
An Archeologist Says	Informants as Resources
X-Units	Apricot Pits
Now Isn't That Strange?	Fences
Bookmark #2	Workplace

Day Three	Systems
Worksheet/Activities/Vocabulary	Modern House/Martin Farmhouse
Reading	Four Views of the House
Florence Remembers	The Parlor and Food Storage
Time Line	Building History
Farm Records	The Martin Years
The Farm Families	The Martins
Farm Talk	Dinner or Supper?
An Archeologist Says	Why Should We Investigate Historical Sites?
X-Units	Dry Sink and Drain Pipe
Now Isn't That Strange?	Osage Orange
Bookmark #3	Comfort

Day Four	**Foundations**
Worksheet/Activities/Vocabulary	Farmhouse Foundation
Florence Remembers	Flowers and Porch Life
Time Line	The Growing Season
Farm Records	For Fun
The Farm Families	Immigrants/Emigrants
Farm Talk	Frog and "Frog"
An Archeologist Says	The Martin Site Is Important
X-Units	Batteries
Now Isn't That Strange?	Country Style
Bookmark #4	Welcome and Belonging

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Day Five	**Celebrate** the week's learning; review or test. Share with guests. Commit to stewardship.
Worksheet/Activities/Vocabulary	Celebrate Kansas Archeology
Florence Remembers	Review and Present for Guests
Time Line	Just Last Year
Farm Records	Farm Dogs
The Farm Families	Your Own Family
Farm Talk	Review, Spell, and Define
An Archeologist Says	I Hope . . .
X-Units	New Questions
Now Isn't That Strange?	Change Over Time
Bookmark #5	Commitment

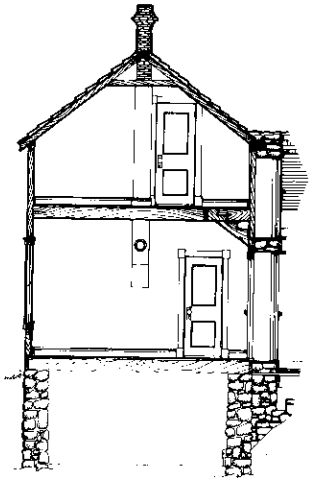
BOOKMAR TEMPLATE

A house is a shelter. Fierce rainstorms can only knock at the windows. The family is safe inside when winter brings deep drifts of snow.

▼

Archeology Office
Kansas State Historical Society
6425 SW 6th Ave.
Topeka, KS 66615–1099

785-272-8681 ext 266
vwulfkuhle@kshs.org



A house is a workplace. Food and supplies are stored in the cellar and attic of a Kansas farmhouse.
In between are rooms where the family works and plays.

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Kansas State Historical Society
6425 SW 6th Ave.
Topeka, KS 66615–1099

785-272-8681 ext 266
vwulfkuhle@kshs.org

A house is a place of comfort. The smell of freshly baked bread or the sight of smoke from the chimney means someone is tending the fire.

▼

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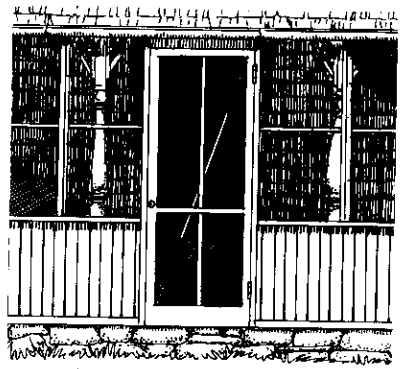
vwulfkuhle@kshs.org



A place to call "home" has that sense of welcome and belonging you feel at your own back door.

▼

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Topeka, KS 66615–1099

785-272-8681 ext 266
vwulfkuhle@kshs.org

_____
(name)

is a partner in preserving the archeology of Kansas . . .
. . . and knows that our state's sites are unique, our past cannot be replaced, and every Kansan must . . .

STAND GUARD!

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Kansas State Historical Society
6425 SW 6th Ave.
Topeka, KS 66615–1099

785-272-8681 ext 266
vwulfkuhle@kshs.org

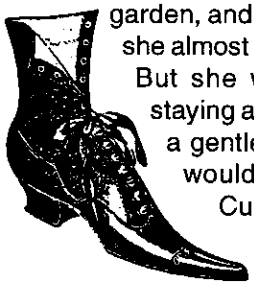
Family Storytelling

Whether a family has an oral or a written tradition, storytelling is a part of life. Someone says, "I remember when your grandfather bought that car," and the story begins. Or someone will write a letter that includes a memory or an old snapshot. In this way family stories are passed from person to person.

Florence Martin remembered much about her childhood on a Kansas farm. She wrote about her family and friends. In one letter she told how her big sister Rose took a tumble from a horse on the way to high school. Here's a story about that day long ago.

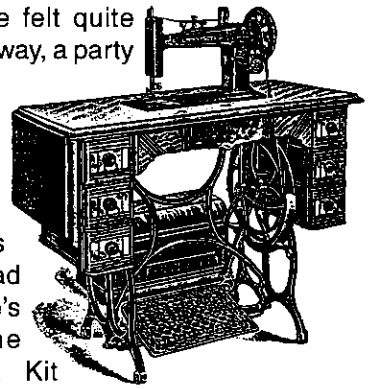
New School Shoes

With lunch box and school books strapped behind her saddle, Rose Martin set off for the high school in town. She waved to her parents, who stood in the yard to see her off on this first day of school. For a moment the old farmhouse, barns, and the orchards, garden, and fields beyond seemed so safe that she almost wished she could just stay at home. But she would never become a teacher staying at home, so she gave her horse, Kit, a gentle kick. She was glad to know she would enter the little Kansas town of Cuba in high style, astride her horse, with her new shoes and stockings free of road dust.



Four miles to go down the familiar country road. The sound of her own family farmstead faded until she could no longer hear the roosters crowing and the morning song of the hens. Chickens in other farmyards sang more verses of the familiar tune as she and Kit headed west past neighboring farms.

Rose's new school dress was neatly starched and pressed. Mother had sewn every stitch of Rose's clothing from the skin out. Rose's heart skipped a beat when she thought of the new winter coat on order with Sears, Roebuck and Company. Each day she checked the mail, hoping the "ready-made" coat would arrive before the cold weather. After all, high school clothes were important, and her old coat had been moved down to "chore clothes" category. Her black leather shoes shone brightly in the September sun. So did Kit's coat, for Rose had brushed him this morning before breakfast. She wanted to make a fine impression on her new classmates. Students from every little country school all over the township would be together now, studying geometry and biology and other high school subjects. There would be music and art class and new friends and games of baseball and special school parties, too. Rose's mother had this very morning promised to begin cutting out the pattern for another new dress—this time a party kind of dress, an "I'm invited to the dance" kind of dress—a dress Rose would eventually pass down to her little sisters, Florence and Flossie. They were twins and would have to work out a sharing plan on their own. For now, Rose felt quite satisfied: a new coat on the way, a party dress in the works, and a new school dress for today's opening exercises.

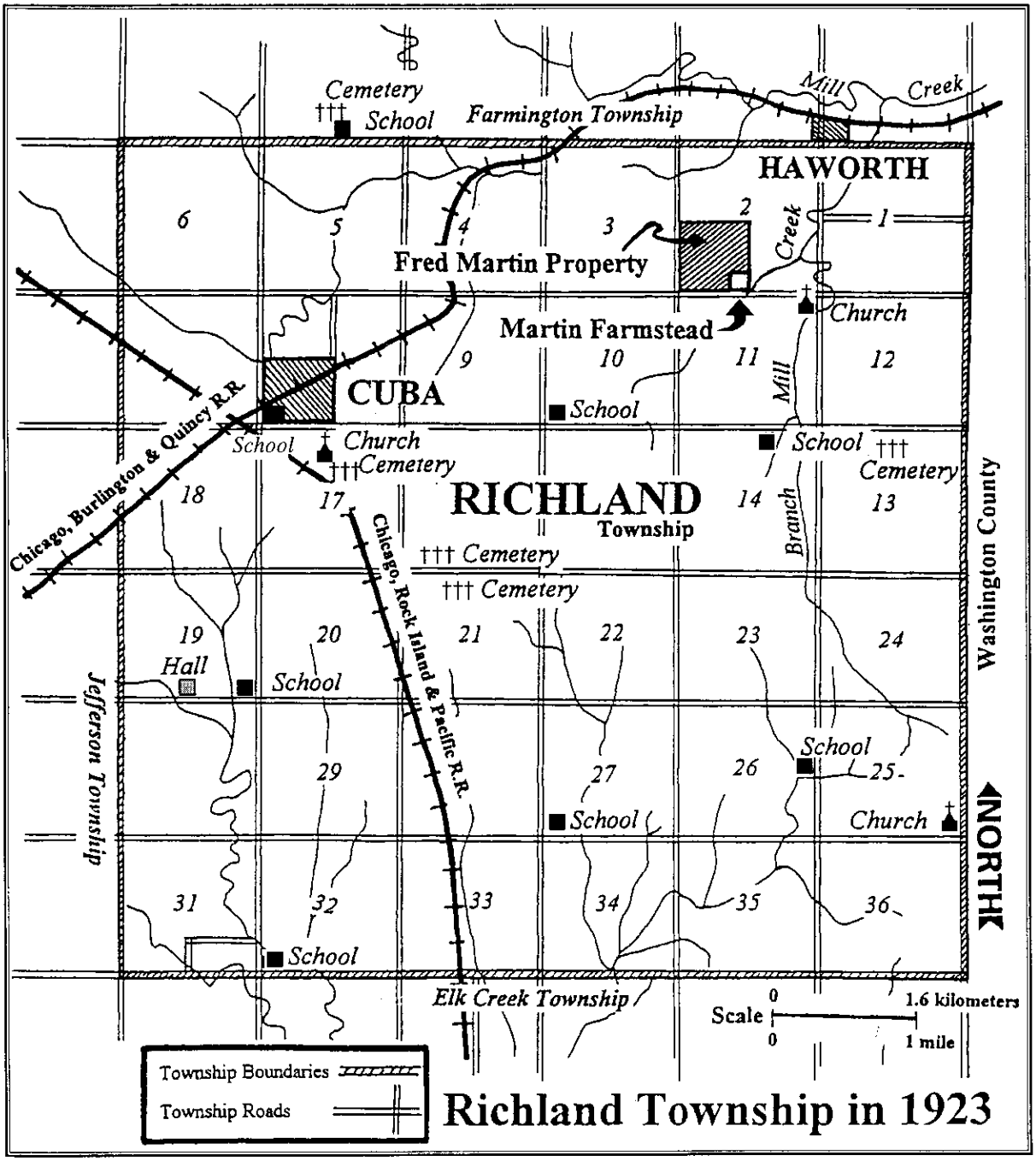


Rose patted Kit's neck, and the horse seemed to catch the girl's excitement. After all, he had new shoes too, which Rose's father had fitted at the blacksmith shop at home. Kit danced and broke into a snappy trot that pleased his rider very much, although the bump-bump set her carefully arranged hair to bouncing.

Trot-trot. Trot-trot. New school. New school. Kit's pace beat a rhythm for the excited girl. So much to learn! Rose knew she would become a teacher one day, and she intended to study hard and become a good one. Her old school in Washington County was just a memory now, and her years of study at Bates Schoolhouse were over. All the fuss and worry over clothes were forgotten. A whole flock of butterflies seemed to flutter in her stomach. Would she know as much as her classmates? What if they were ahead of her in their studies? She was as nervous as a cat! Rose laughed out loud to ease her tension.

Up ahead was the Burlington railroad crossing, which made Kit feel as nervous as ... well, as a horse with new shoes. Iron rails and a gravel roadbed did not feel good to a horse's hooves, and Kit was still getting used to the new horseshoes. Surely Rose knew this and would signal that he should go in another direction? Kit remembered other times at that place up ahead, when noisy smoking trains would come roaring toward the crossing. The horse skittered sideways, hoping to avoid the inevitable. Rose, head filled with plans and worries, was paying little attention. Closer and closer the horse and rider came to the rails. More and more stubborn Kit felt about not making the crossing. A buck, a swerve, and a burst of speed ... Rose was on the ground, and Kit was hightailing it for home.

The sound of Kit's hooves reached Rose's mother and father before the actual appearance of the riderless horse. Both parents drew in sharp breaths. Where was Rose?


Cemetery
School
Farmington Township
Mill Creek
HAWORTH
Fred Martin Property
Martin Farmstead
Church
CUBA
School
Church
Cemetery
School
Cemetery
Chicago, Burlington & Quincy R.R.
RICHLAND
Township
Chicago, Rock Island & Pacific R.R.
Branch
Mill
Creek
Washington County
Jefferson Township
Hall
School
School
School
School
Church
School
Elk Creek Township
NORTH
Scale
0
1.6 kilometers
0
1 mile
Township Boundaries
Township Roads
Richland Township in 1923

Use the map to answer these questions.

What is the name of the township? _____

What year does the map show? _____

Find the arrow that shows which way is north. Add similar arrows around the border of the map showing east, west, and south.

Use the scale to find out Richland Township's size. It is ____ miles north to south and ____ miles east to west.

Use colored pencils or markers to show:

township boundaries	black	Martin property	green
township roads	brown	Martin farmstead	red
Chicago, Burlington & Quincy Railroad	purple	Branch of Mill Creek near Martin farm	blue
Cuba, Kansas	yellow		

Expand the map's legend. Add the symbols for school, cemetery, and railroad.

The three Martin girls were all born in the county just east of Republic County. In what county were they born? _____

On the Richland Township map, trace the route Rose took to high school. How many miles did she travel on a school day? _____ What railroad crossing did she encounter? _____

Since Kit disliked the railroad crossing, find an alternate route Rose could have taken. How many miles would it have been by this alternate route? _____ What else might Rose have seen at various seasons on her ride to school? _____
What do students see on their ways to school? _____

Circle the school (Bates #51) where the Martin girls attended. (It is south and slightly east of the house.)

How many "country schools" were there in the township? _____

In what town is the township's high school? _____

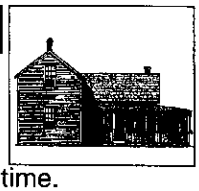
In what township is Haworth, where Fred Martin hauled cream and butter? _____
How far was it from the farmstead to the railroad pickup point? _____ What railroad took the farm products southwest into Concordia in Cloud County? _____

The numbers on the map are the section numbers. We still use this system of land location today. The Martin farm, for example, was identified as the southwest quarter of Section 2 (SW¼, Sect. 2). How many acres in a quarter section? _____ How many acres in a section? _____

Divide Section 23 into quarters (four equal areas). Put a red X in the northeast quarter (NE¼). If you lived in the southeast corner of the northeast quarter of Section 23, in what section is the closest school? _____
How far would it be by road to the church in Section 25? _____ How far would the church be "as the crow flies" (that means cutting across other property and not going by the roads)? _____

One thing I have learned about family storytelling: _____
_____
_____

Extra Credit. Finish the story "New School Shoes." We know from Rose's sister Florence that Rose was unhurt. She continued to ride Kit to school for the next four years. We also know that Rose's dream of becoming a school teacher came true.



New School Shoes

Following is the original recollection that resulted in the story "New School Shoes."

"A horse named Kit was a riding horse. Rose rode her to H.S. [high school] in Cuba part of the time. Kit threw Rose off once as she jumped the railroad track. Kit came home without Rose and scared my parents. Rose wasn't seriously hurt."

Activity: Family Storytelling

The Florence Remembers section on pages 127-129 of Unit Three provides other examples of Florence Martin Cundiff's recollections. Ask students to choose one and write a story. You may want to expand this activity by asking students to "collect" a written recollection from a family member or neighbor for use in writing a story about their own history.

Informant Information

Mrs. Cundiff responded in writing to direct questions posed by the archeologist who conducted excavations at the Martin farmstead. Here she tells about the privies at the farm. The letter below shows that Mrs. Cundiff was uncertain about some facts. Keep in mind that personal recollections, while valuable in historical and archeological research, are not always 100 percent accurate. Somewhere among physical evidence, written documents, and the collective stories of a people lies reality.

Feb 19, '93

Christopher M. Schoen

Dear Sir

I want to reply to your request for more information about the farm on which I grew up ~~on~~ near Cuba Kans.

Did I say in my report that the privy (north one) was never used by our family? It was. I believe Dad moved it before I was in High School and that would be before 1919.

I have no idea what my father filled the vault with — I probable was in school when it was done.

If it was filled (again) or changed after my parents moved to Cuba, we would have no knowledge of it

The second vault, or pit ~~that~~ that my father dug was not lined — it must have been 4 or 5 ft deep. The outhouse must have been 4 by 6 ft (an estimate).

Is it possible that the privy was moved before we moved there? And there would be another or 3rd pit closer to the foundation of the smoke house.

Map Work

A map of your township or county can provide further exploration. Good sources of these kinds of maps are your courthouse or local historical society. Questions similar to those asked about the Richland Township historical map can be asked about a map of your own area.

HOUSE MODEL PROJECT

This paper model of the Martin farmhouse is the central project for the study unit. How you use the information will depend on your students' level and abilities. You can build the model yourself, in small groups, or individually. However you choose to proceed, **START THE HOUSE MODEL THE WEEK BEFORE THE UNIT BEGINS!**

OPTION: Use house drawings with study guide materials without assembling.

OPTION: Assemble only the stone cabin; students can help with additions.

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Getting Ready

Materials: Large (approximately 27 x 34-inch) piece of poster board, card stock paper to copy template onto, clear tape, glue stick or white school glue, scissors

Optional items: Exacto knife, straight edge, crayons, colored felt markers, colored pencils, hot glue gun

Tips: Read through the instructions once or twice to familiarize yourself with the steps. All instructions are given in respect to north, south, east, and west orientation.

Cut out each piece carefully around the outline, **as you need it** for assembly. Cutting out all pieces at once may cause confusion later since this separates some of the parts from their labels. Scoring the folds with an Exacto knife helps them crease accurately (especially the glue tabs). Assembly may be done with glue, using the tabs, or with tape.

Before you start: Some of the walls, as well as wall details, have been left out. This farmhouse cutout is based on the actual archeological drawings created during the Martin farmstead survey. Based on the information available, you may want students to "fill in the blanks." For example, missing doors and windows could be drawn in, and the parlor could be furnished. Encourage students to use their imaginations.

For the adventuresome: You may want to carefully cut out all the windows and doors with an Exacto knife. This will reveal the interior after the house is assembled. Cutting out the window areas on the screened porch will allow viewing of the original stone cabin. Leave the roof sections over the addition and the original stone cabin loose so that the floor plans of each can be exposed for study.

Instructions:

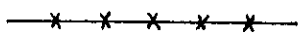
1. Prepare a poster board base for the house and farmyard. Include a north, south, east, west directional indicator. Enlarge to 222 percent the Farmhouse Foundation from the Worksheet/Activities/Vocabulary section on page 121. Attach the foundation to the poster board, referring to the Martin Farmstead site map on page 107 for placement.
2. Start with **1** (Ground Floor Plan) and attach **2** (North Side Exterior Walls)
3. Attach **3** (East Side of Addition Exterior Wall). This is the wall that separates the original stone cabin from the later addition.
4. Attach **4** (East Side of Stone Cabin Exterior Wall).
5. Attach **5** (Second Floor Plan of Stone Cabin) between the cabin walls, aligning the floor with the top of the floor level as indicated on **3** (East Side of Addition Exterior Wall).
6. Attach **6** (South Side of Stone Cabin Exterior Wall) to the south face of the stone cabin.

NOTE: This completes the original stone cabin minus the roof. From this point all walls and floors are later additions.

7. Attach **7** (Cream Separation Room Partition) to **4** (East Side of Stone Cabin Exterior Wall) and **1** (Ground Floor Plan).
8. Attach **8** (East Side of Porch Exterior Wall) to **7** (Cream Separation Room Partition) and **2** (North Side Exterior Walls).
9. Place **9** (Ground Floor Addition Partition) between the parlor and the master bedroom. Attach this wall to **1** (Ground Floor Plan) and the west side of **3** (East Side of Addition Exterior Wall).
10. Attach **10** (Second Floor Plan of Addition) to **2** (North Side Exterior Wall), **3** (East Side of Addition Exterior Wall), and **12** (West Side of Addition Exterior Wall), allowing it to rest on **9** (Ground Floor Addition Partition).

11. Attach **11** (Second Floor Addition Partition) between the two upstairs addition bedrooms to **10** (Second Floor Plan of Addition) and **3** (East Side of Addition Exterior Wall).
12. Attach **12** (West Side of Addition Exterior Wall) to **2** (North Side Exterior Wall) and **1** (Ground Floor Plan).
13. Attach **13** (South Side of Addition Exterior Walls) to the south side of the house.
14. Fold as indicated **14** (Stone Cabin Roof), **15** (Porch Roof), and **16** (Addition Roof). Place the appropriate roof on its section. You may wish to fasten the porch roof in place to stabilize the screened porch walls.
15. Wait until Day Three to add chimneys, so students will make the "systems" connections. Cut, fold, and fasten **17** (Stone Cabin Chimney) and **18** (Addition Chimney). Attach the chimneys to the original stone cabin roof and the addition roof, as indicated by the squares on the respective roof sections.
16. Use the six items (rain barrel, pump, outhouse, flock of chickens, horse and buggy, and Christmas tree) on Days One and Three.

Suggestions for day-by-day additions to the poster board base of the house model are listed below. Use the site map on page 107, which gives the orientation and size of all features on the farmstead. Remember to convert the scale to match the house model—great math exercise! (The house model is about 1520 percent larger than the house on the site map.) Older students should use standard architectural notations seen in bird's-eye view:

Fence  Tree 

Related activities are included on pages 97-99.

Day One

Add sidewalk.	Cement
Add apple tree.	The twins had a rope swing with plank seat in this tree.
Add Christmas tree.	In the southeast corner of the parlor, a tree was placed each year (probably a red cedar, considered a pest in pasture land, but very nice as a Christmas tree).
Related activity	Orientation
Related activity	National Folk/Vernacular Style
Related activity	Lintels and Gables

Day Two

Add smokehouse.	
Indicate cellar.	Called the "cave"
Related activity	A Stone House
Related activity	Wallpaper and Linoleum

Day Three

Add chimneys.	Locate the heating/cooking systems inside.
Add pad and pump.	Pad north of sidewalk at east door; pump on east half of pad
Add yard fence.	Woven wire
Add three gates.	One leading to outhouse, one at east end of sidewalk, and one (not shown on site plan) in middle of south fence
Add outhouse and pathway.	
Add cement trough.	Used to water livestock
Add rain barrel.	Soft water every time it rained!

Day Four

Add water lily pond.	With yellow, white, and vivid pink flowers
Add pansy bed.	On north side of kitchen close to wall (not shown on site plan; 1 x 3 feet in size)
Add three lilac bushes.	One at east gate, one at south gate, and one beside cement trough
Add morning glories and lilac and sweet peas.	Blue morning glories and pink/white/deep sweet peas on the yard fence between lilac and trough
Add zinnias and marigolds.	Florence did not specify a location other than, "Mother planted them in the yard," so students can decide.
Add Jonathan apple tree.	Just outside the west fence line, southwest of the outhouse, and northwest of the apple tree inside the yard. One branch, which grew long and low and parallel to the ground, served as place for the twins to practice "skin the cat" and other gymnastics moves.

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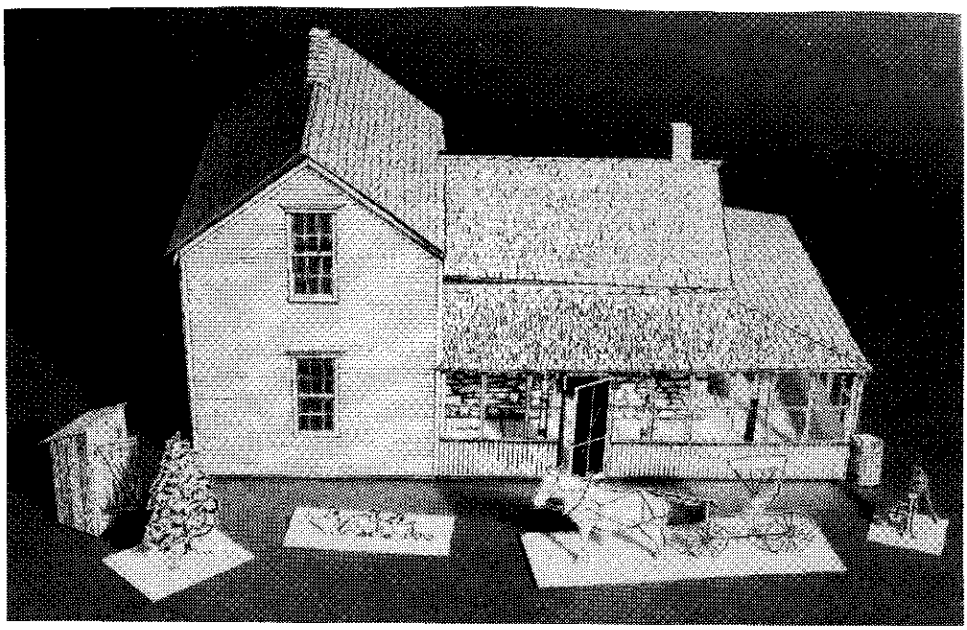
Day Five

Review, share the stories, new terms, etc. with guests.



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RELATED ACTIVITIES

Orientation

It is essential that students begin to orient using the cardinal directions (north, south, east, and west), as well as develop a sense of the semicardinal directions (northeast, southeast, southwest, and northwest). Clearly mark the classroom floor and walls with colored tape to indicate the directions. Let students use a compass to determine the orientation of the classroom, school, cafeteria, etc. Use Richland Township, Kansas, and United States maps to practice. How is orientation different on a map than in "real life?"

National Folk Architecture/Vernacular Style

Vocabulary: architecture National Folk vernacular

National Folk architecture: Made "by the people" in the practical form with (usually) no pretension to follow a formal architectural style such as Federal, Tudor, etc. If the building in question were a language, it would be called "American" rather than "English."

Depending on the skilled crafts people, available building materials, and intended use of a structure, the National Folk building is constructed in the **vernacular style**. The term "vernacular" comes from the Latin word that means "slave born in the master's house" or "a native." In language, "the vernacular" means using a dialect of a specific group or region rather than a literary, cultured language. In buildings, the vernacular style is like the local dialect, only in buildings. Its overall shape and materials and floor plan signal, "No architect drew blueprints in designing me. I was built by local crafts people who used the locally available materials."

The Martin farmhouse says all of that, both as a stone cabin and with the additions. The little one-room cabin west of the farmyard (the only remaining structure still standing now) says the same thing. Using the recognized naming system of architects and people who study historical buildings, many nineteenth- and early twentieth-century Kansas buildings are in the same category.

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Lintels and Gables

Vocabulary: lintel gable

Buildings have a language that speaks to specialists and to regular people too. When you see a house, you might describe it as big, tall, fancy, old, new, modern, ugly, beautiful, sturdy, friendly, spooky, etc. Think of an example for each of these in your community.

An architect or historic preservationist (who studies old buildings) would use a special vocabulary to identify a building. A house builder and a carpenter would add another vocabulary, involving the materials and the construction techniques. Some of the terms all these people would have in common, and some are very specialized terms. "Lintel" and "gable" are terms that they would all understand in the same way.

Lintel: A support stone or beam spanning a window, door, or other opening.

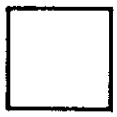
Gable: The triangle formed by the sloping edges of the roof and the horizontal line from eave to eave (side to side).

The 1885 stone cabin has stone lintels and single-end gables, as does the 1875 stone cabin to the west. Because most of the nineteenth-century Kansas settlers came from cultures whose building traditions required geometric shapes in order for buildings to look "right," you can find these shapes throughout the Martin farmhouse. List an example of each.

Rectangle example: _____

Triangle example: _____

Triangle example: _____



Square example: _____

Rectangle example: _____

Is there a circle or a curve anywhere? Can you think of some furnishings that would be less angular, "softening" the straight lines and sharp angles? Hint: What about something pink in the parlor?

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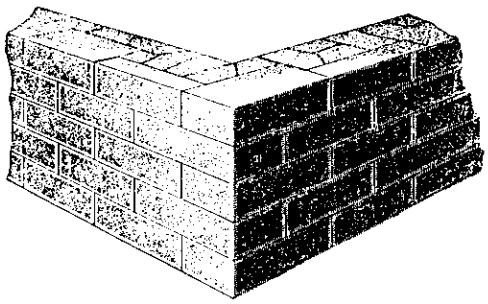
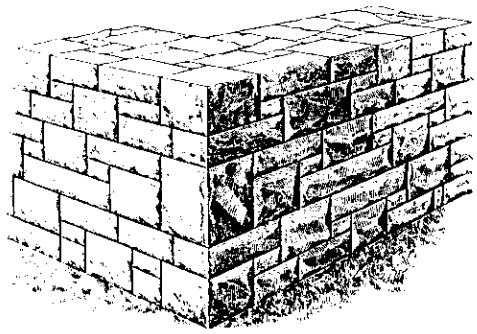
A Stone House

Vocabulary: dressed stone ashlar stone

A house of stone has a whole vocabulary of its own. Is the stone "dressed" (all the blocks cut and finished the same size and laid in even "courses" or layers from bottom to top)? Is the "face" of the building of "ashlar" stone (blocks of different sizes, also laid in even courses, but sometimes requiring more than one stone to achieve the same course height).



Dressed stone.



Ashlar stone.

What about mortar? See Day Four of the Worksheet/Activities/Vocabulary section on pages 121-122 for a description of the mortar used on the stone cabin portion of the Martin house.

Find these features of the Martin house: quoins and wainscoting.

Find out about these terms and their relationships to one another and to the rest of the set:

mason/masonry carpenter/carpentry joiner/joinery architect/architecture contract/contractor	stonemason cabinetmaker craftsperson artist	brick/kiln limestone/air

✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦

Wallpaper and Linoleum

Use the descriptions of wallpaper and linoleum scraps found by the Archeology Team to reproduce a wallpaper and floor covering in the Martin kitchen:

"A scrap of wallpaper was found in X32 under kitchen floor of the eastern cabin. It measures 2 ¾ x 1½ in and has an unidentified blue leaf pattern. The long, narrow leaves are dark blue while the background is powder blue. The back side of the paper has a series of undulating, horizontal, blue lines. Small blue dots, about ¼ in apart, are present between the wavy lines. The dots and lines help to align the rolls of wallpaper as they are pasted up."

"A 5⅛ x 3¾ in piece of linoleum was collected from the floor surface of the kitchen near the east door. It has a pattern of khaki flowers highlighted with creamy yellow, yellow, grayish brown, bluish gray, and yellowish orange. Black, khaki, and creamy yellow are used together to denote leaves, and bluish gray and light gray are used in the background."

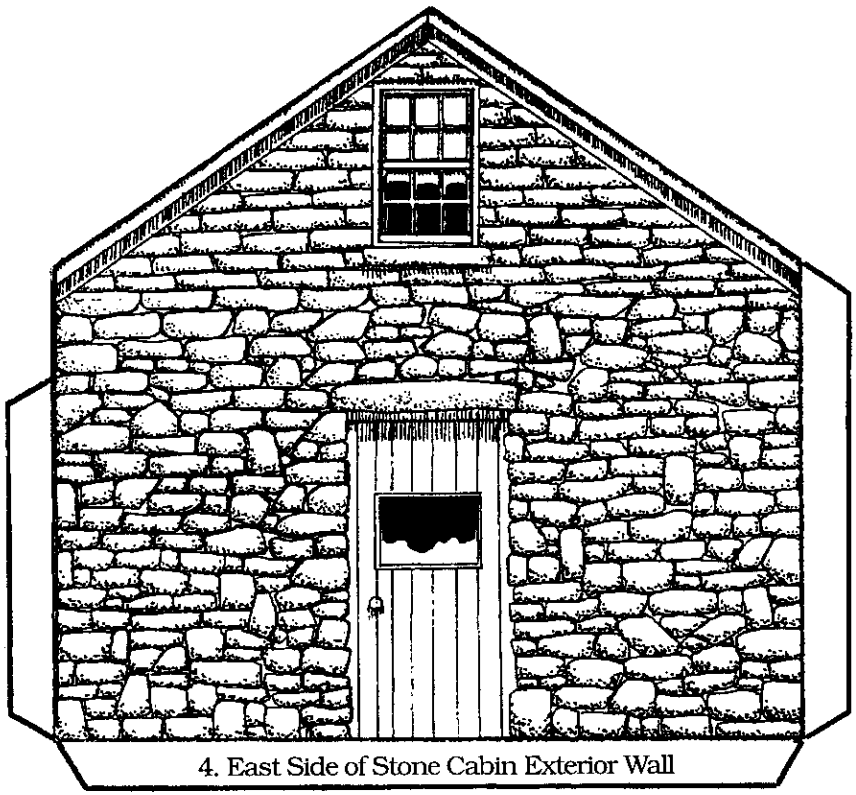
Florence remembers that the walls of the kitchen were wallpapered. Archeologists found ceiling boards, crown molding, and base boards in the kitchen painted a light green. The same green paint was on the cupboard, door frames, and coat hook board. You be the designer. Find out what patterns of paper and linoleum were popular in any of the years the Martins owned the house. Ask the librarian to help you find a Sears reproduction catalogue or other references. Using the light green woodwork as a base, design a wallpaper pattern, border, and linoleum for the Martin kitchen.

✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦

Advertisement

Write a real estate advertisement for a newspaper or magazine describing the Martin stone cabin in 1900. Include the terms you have learned. Then write an advertisement describing the farmhouse in 1909, after the Lang additions.

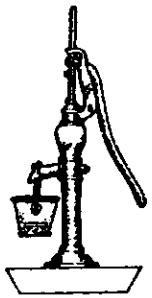
1. Ground Floor Plan



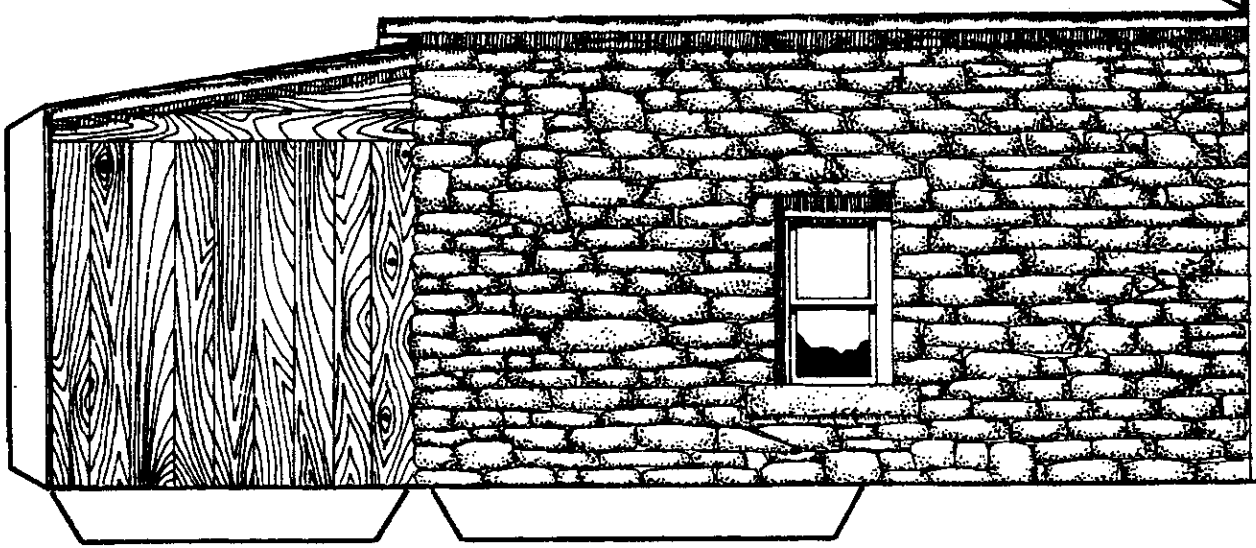
4. East Side of Stone Cabin Exterior Wall

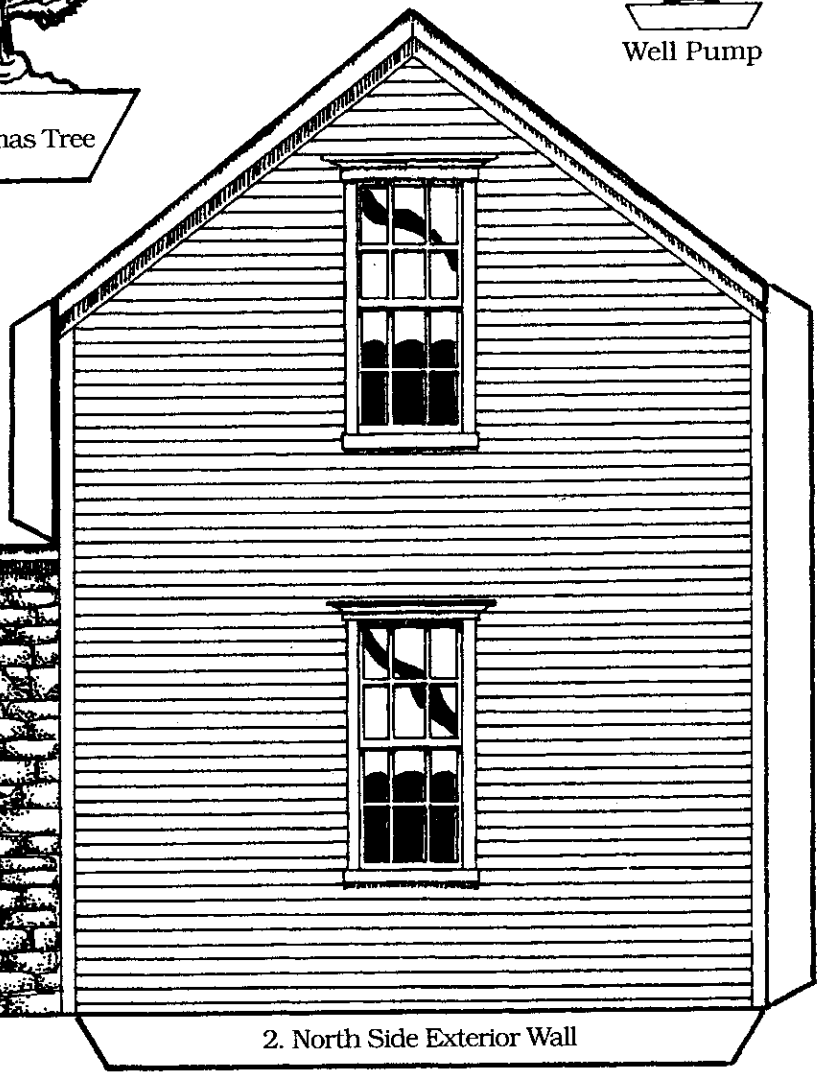
Christmas Tree

Rain Barrel

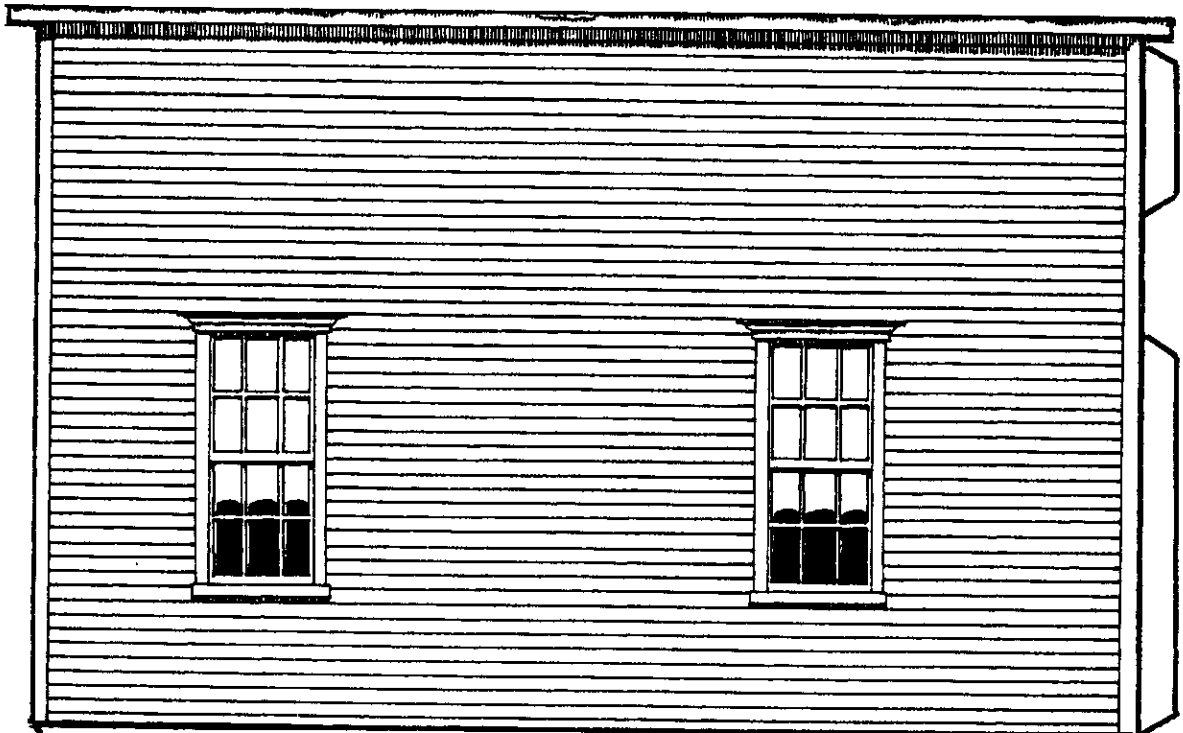


Well Pump

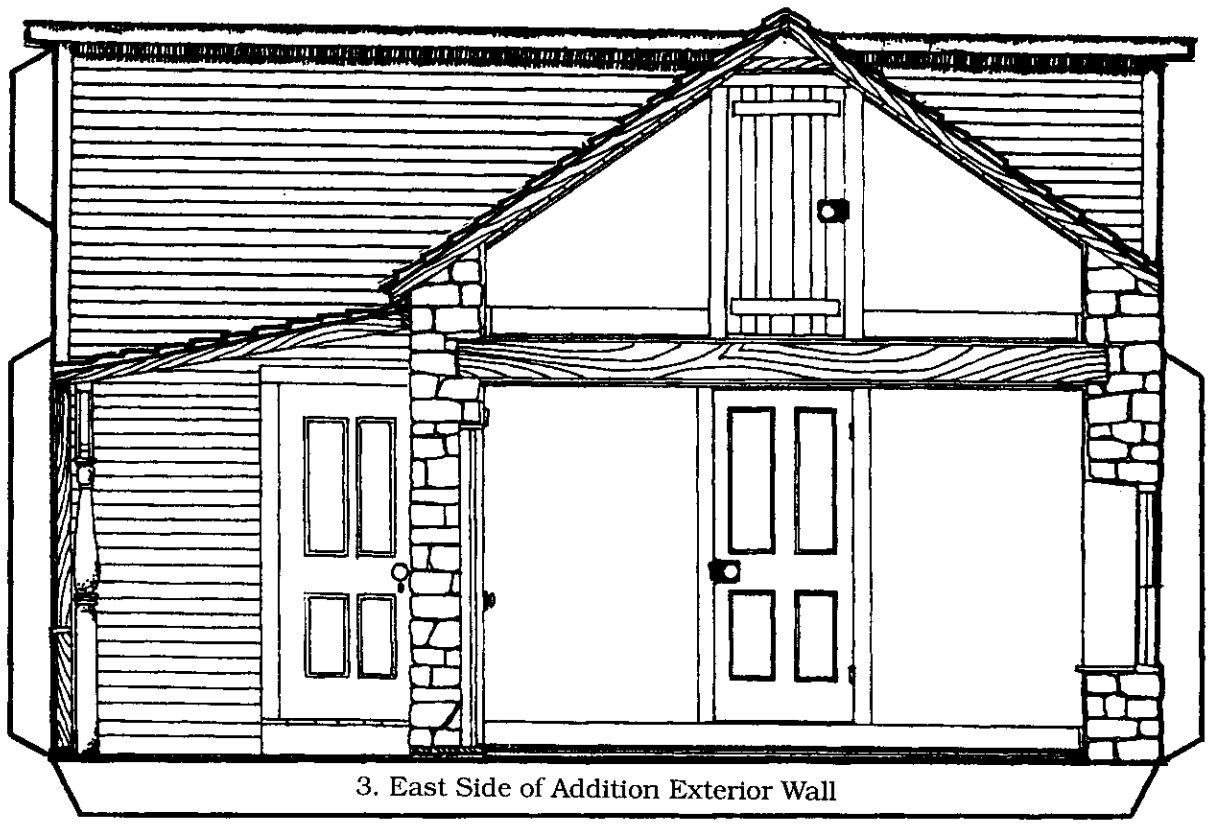




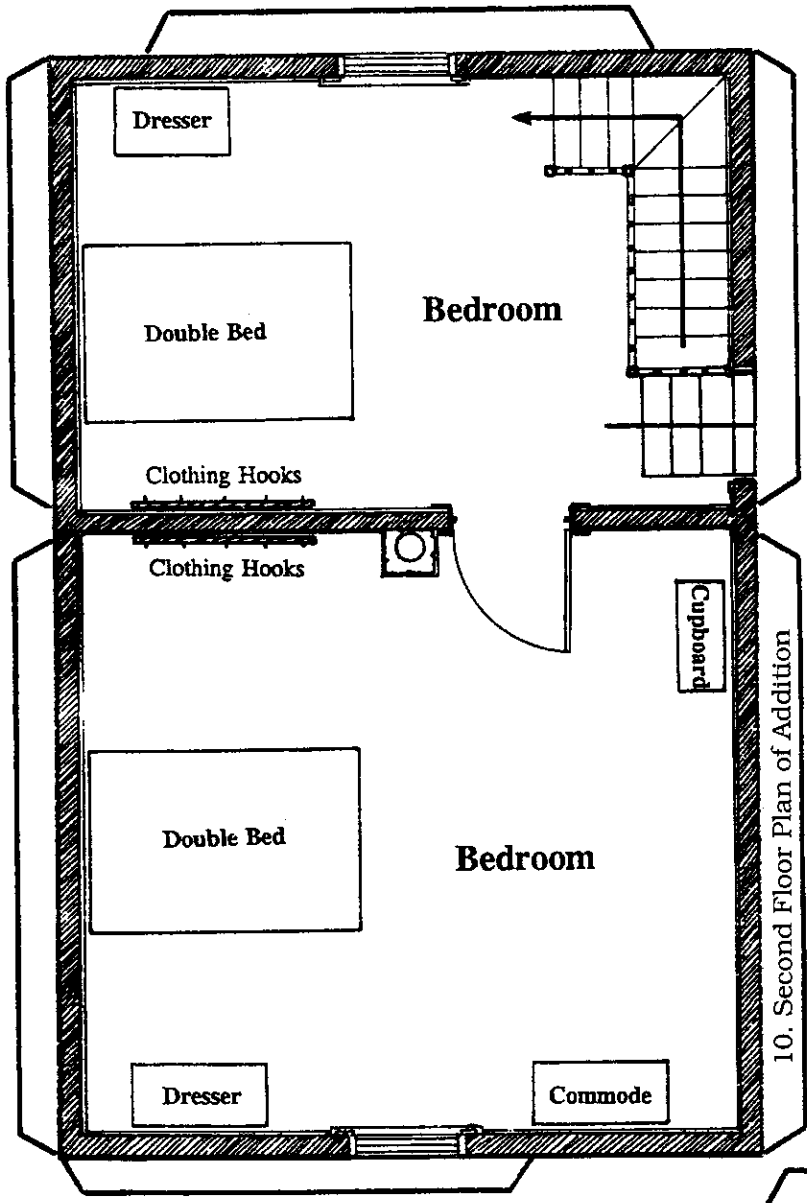
2. North Side Exterior Wall

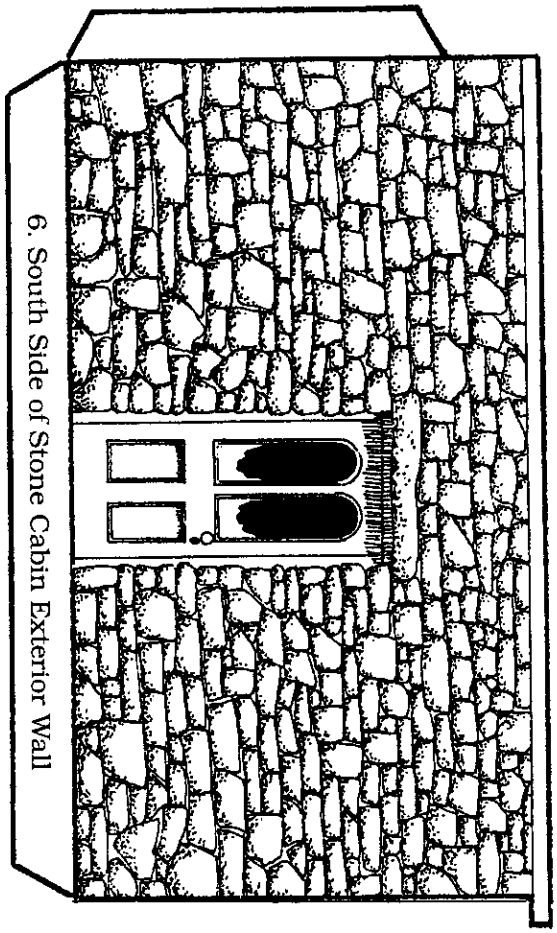


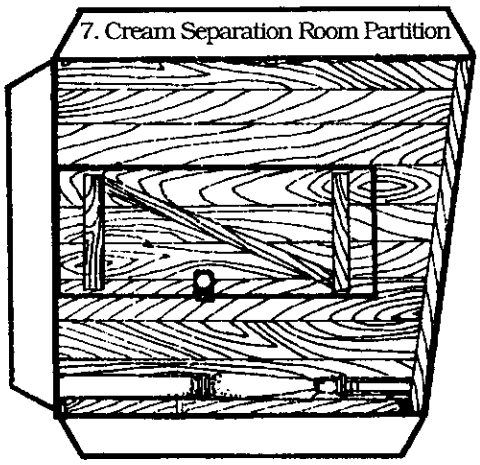
12. West Side of Addition Exterior Wall

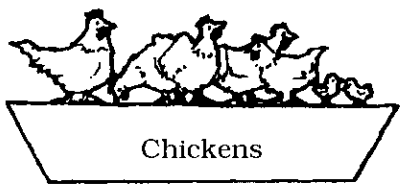


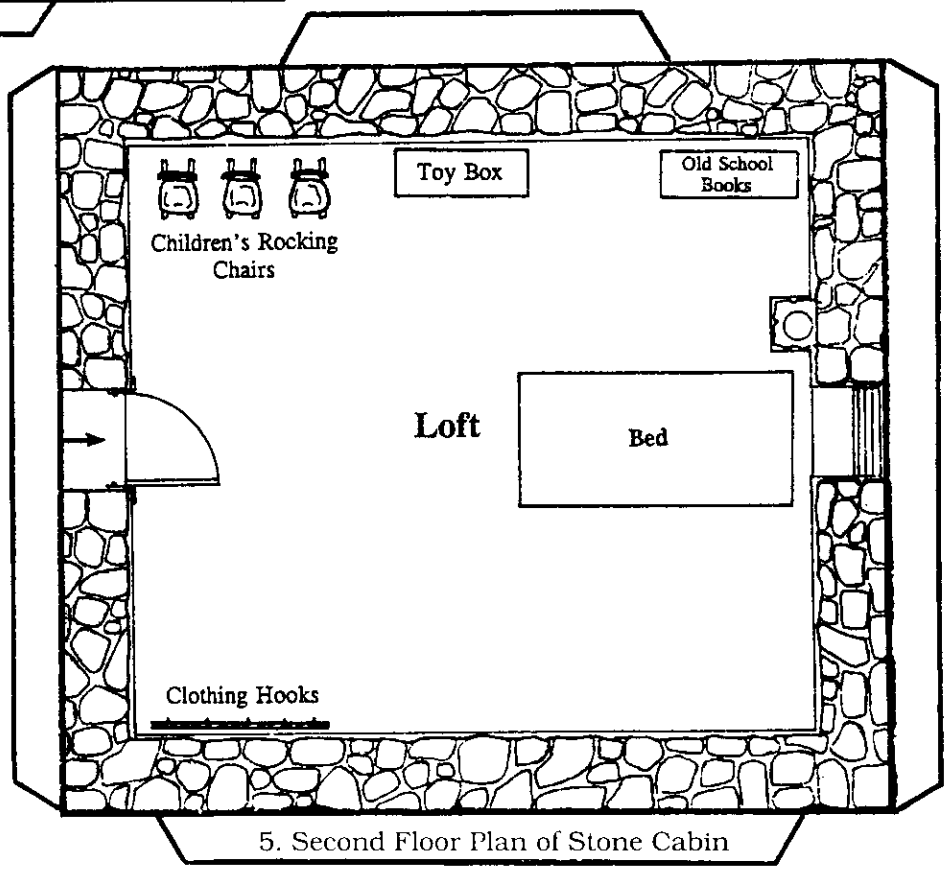
3. East Side of Addition Exterior Wall


Dresser
Double Bed
Bedroom
Clothing Hooks
Clothing Hooks
Cupboard
Double Bed
Bedroom
Dresser
Commode
10. Second Floor Plan of Addition


6. South Side of Stone Cabin Exterior Wall


7. Cream Separation Room Partition


Chickens

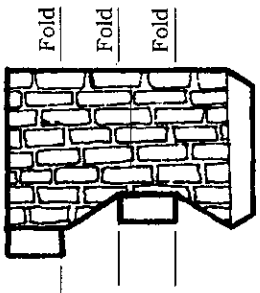

Toy Box
Old School Books
Children's Rocking Chairs
Loft
Bed
Clothing Hooks
5. Second Floor Plan of Stone Cabin

Horse and Buggy

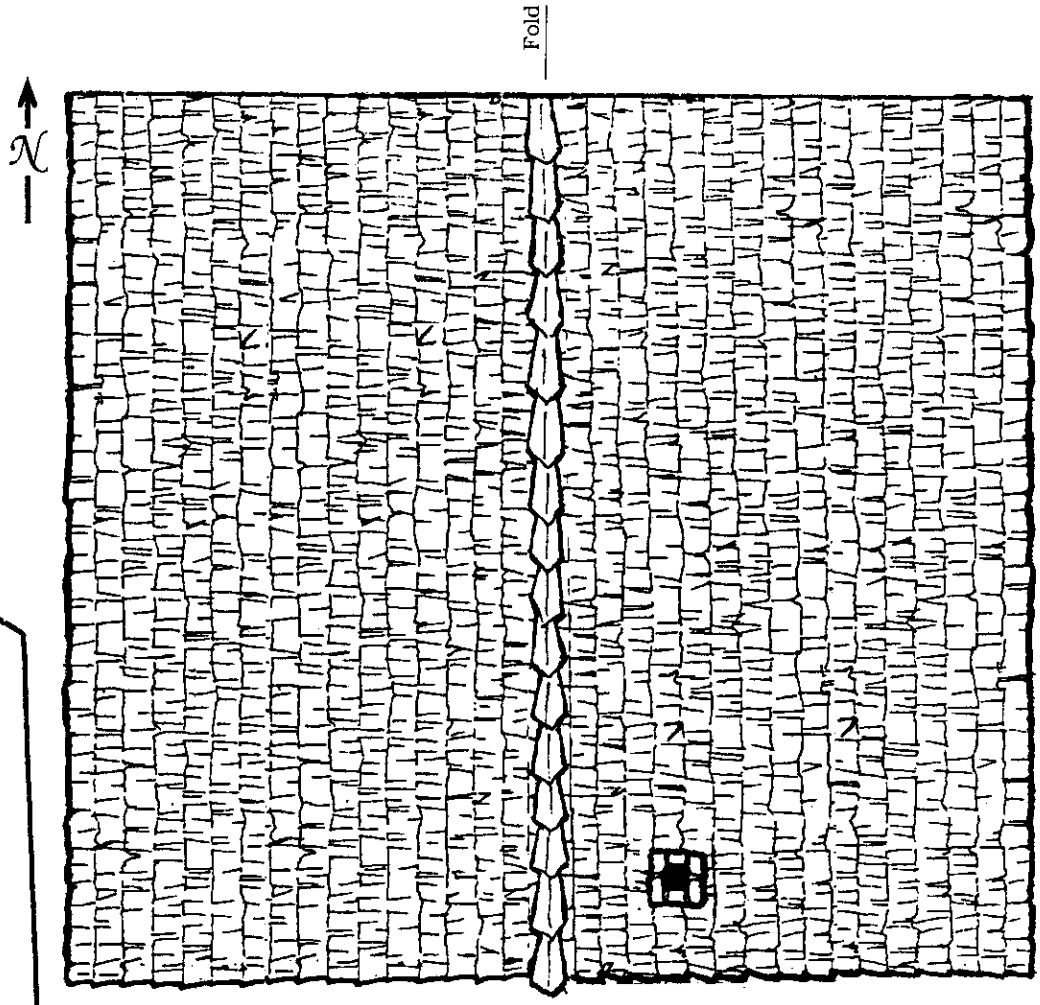
8. East Side of Porch Exterior Wall

13. South Side of Addition Exterior Wall

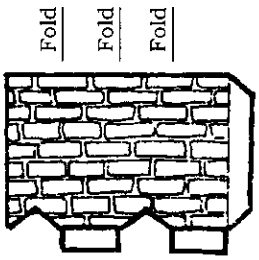
11. Section Floor Addition Partition



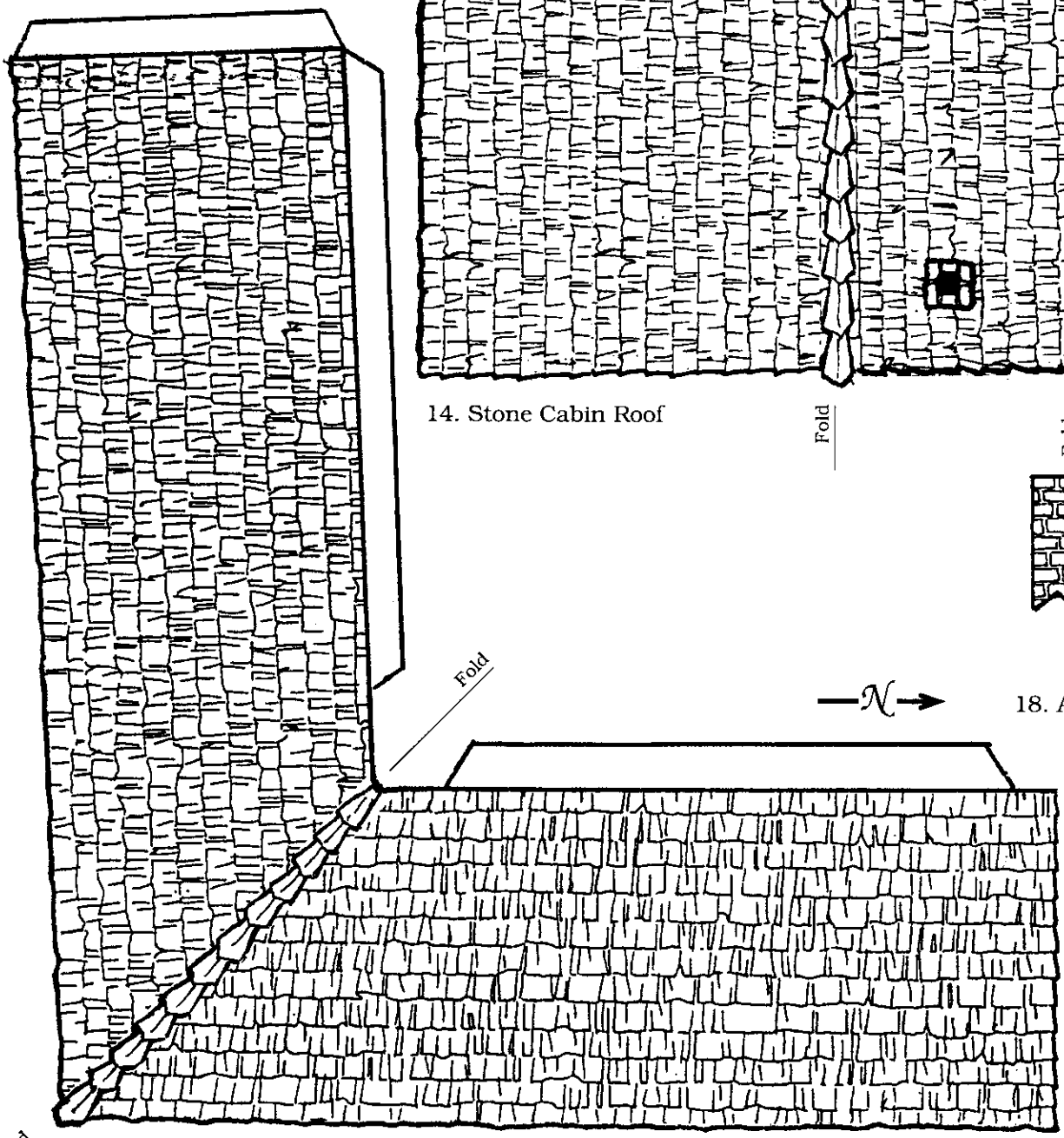
17. Stone Cabin Chimney



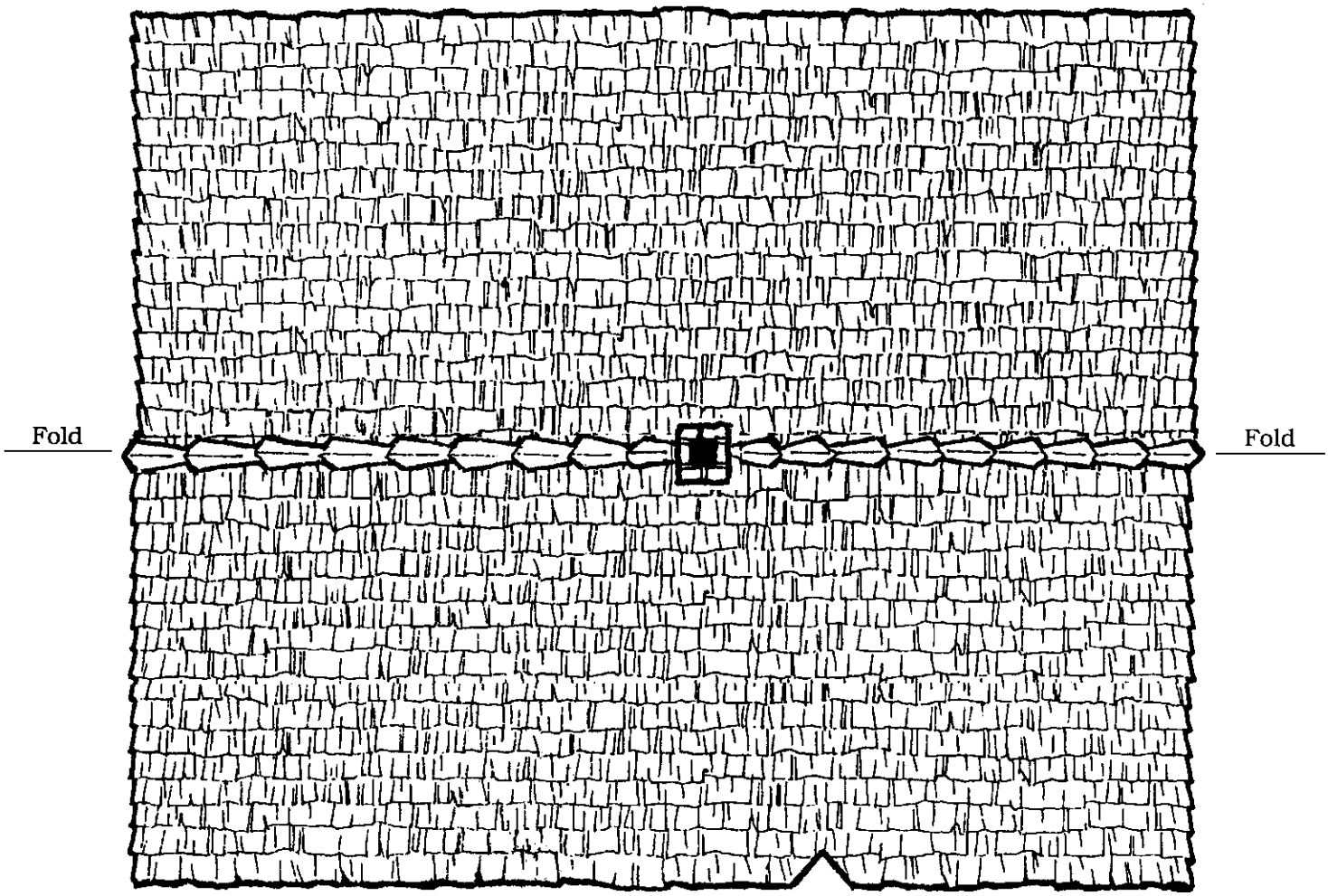
14. Stone Cabin Roof



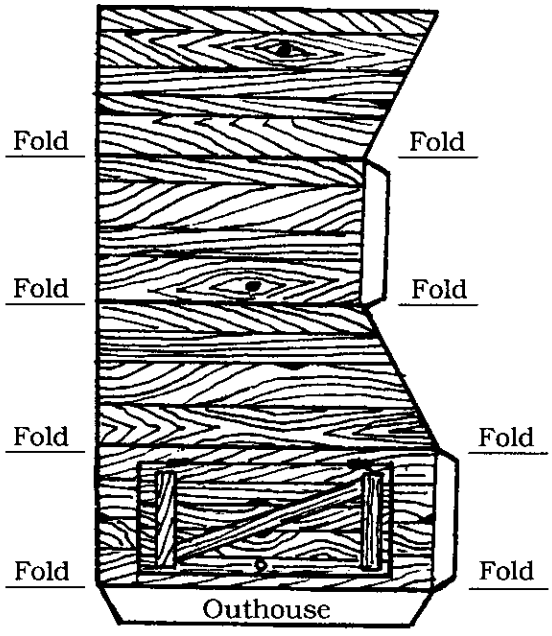
18. Addition Chimney

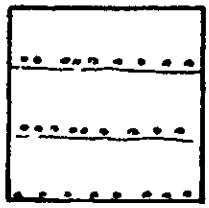


15. Porch Roof

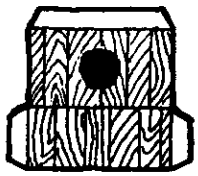


16. Addition Roof

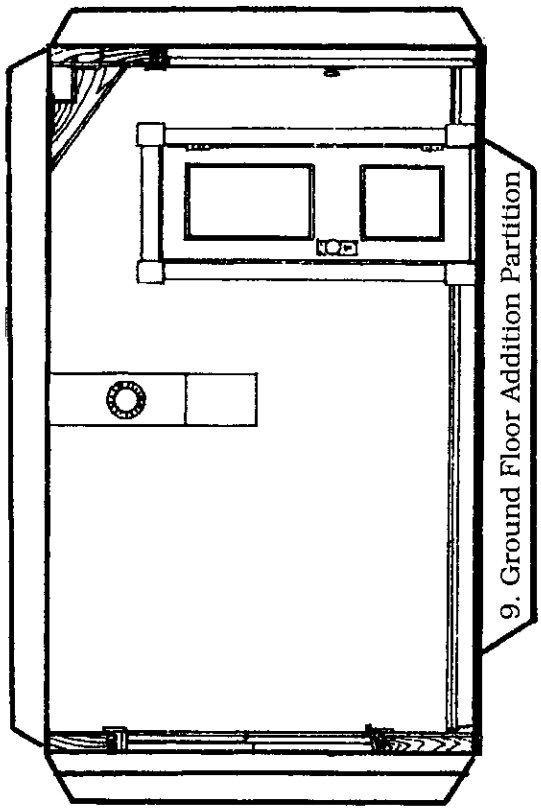


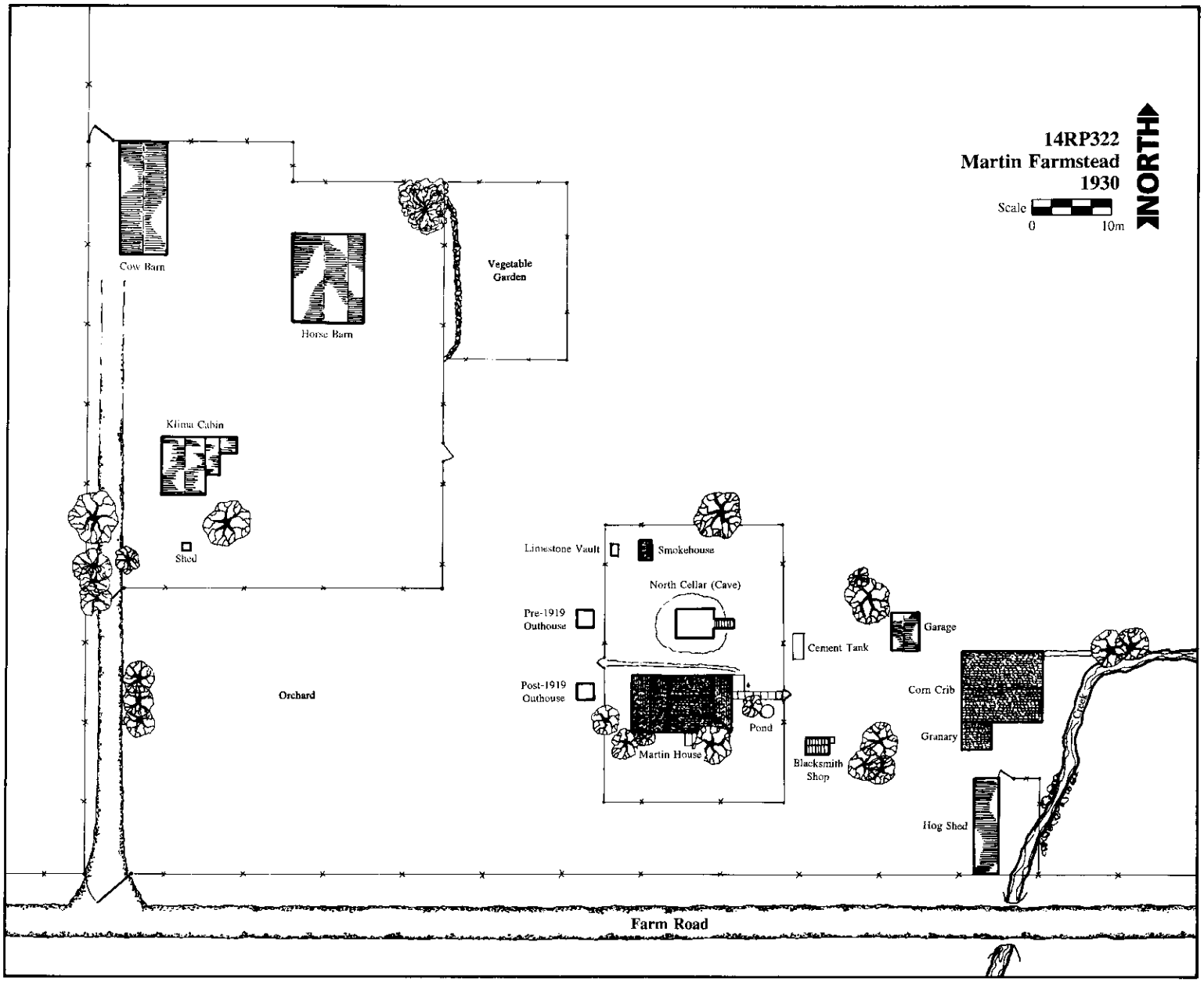


Outhouse Roof



Outhouse Seat




14RP322
Martin Farmstead
1930
Scale
0
10m
NORTH
Cow Barn
Horse Barn
Vegetable Garden
Klima Cabin
Shed
Orchard
Limestone Vault
Smokehouse
North Cellar (Cave)
Pre-1919 Outhouse
Post-1919 Outhouse
Martin House
Pond
Cement Tank
Garage
Corn Crib
Granary
Blacksmith Shop
Hog Shed
Creek
Farm Road

WEATHER/CROP DIARY PROJECT

Materials: Indoor and outdoor thermometers, rain gauge, barometer, wind sock (part of a pair of panty hose works; ask a custodian to help attach it to a stake or to the school's flagpole rope—somewhere visible to your students), AM radio, tuned to a local farm information station.
Teacher Preparation: The week before the unit begins, set up the instruments and learn how to set and read a barometer. Decide what data students will collect. Set up the weather portion of the diary for five-day record keeping.
Procedure: Take readings at regular times each day (morning, noon, end of school day, and more often if desired). Results can be charted or graphed.
OPTION: Students could grow some wheat to accompany this diary and record their "crop" information each day too. Your local seed dealer or grain elevator can probably give you the small amount of seed wheat it will take. Start seed two weeks before the study unit begins. Emphasize that you are creating "artificial weather" by growing a crop indoors with regular waterings, etc.

✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦

Day One

The forecast lets farmers know what to expect. They can plan their work, such as mowing hay, accordingly—provided the forecast is accurate! How is the radio weather report of what has already happened of use to farmers? How did the Martin farmhouse (beginning with the stone cabin) reflect weather considerations?

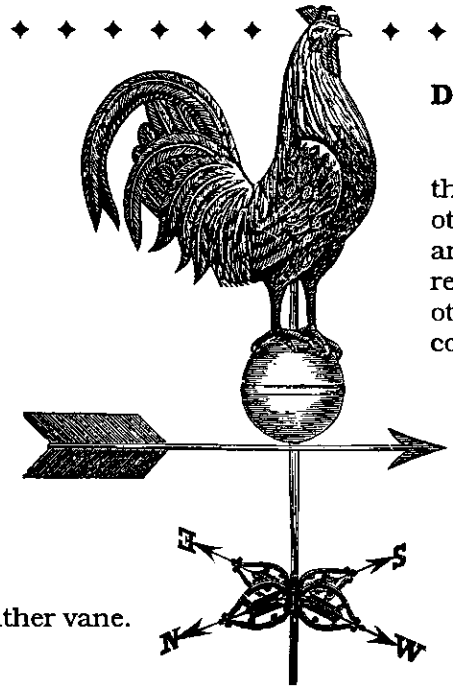
✦ ✦

Day Two

Listen to weather forecasts with a "farmer's ear." What work might have to be delayed on the Martin farm based on the upcoming weather? What conditions would make a job like haying "just right?" What dangers did weather present at each season for people and their stock and crops? How did farmers cope? How do they cope?

Barometer.

✦ ✦



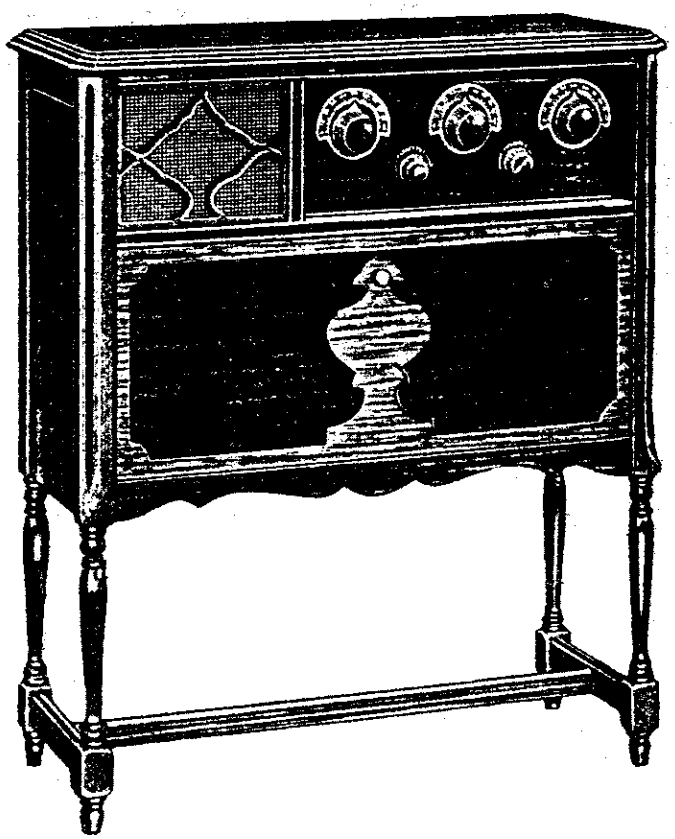
Weather vane.

Day Three

Record the visible signs of weather too. Clouds, winds, the "feel" of the air and its smell, the behavior of birds and other animals are part of the farmer's own weather report and forecast. What systems in the farmhouse are a response to human needs due to climate? How do the other farm buildings indicate that weather is a major consideration in this part of the world?

Day Four

We don't know if Fred Martin used a barometer, but we do know he listened to the weather report on his battery-powered radio. It was a floor model, and it sat right next to his rocking chair in the kitchen. When do you think he listened? Was anyone else allowed to adjust the dials? What news of the world beyond Republic County did the radio bring? How did the batteries for the radio look?



Battery-powered radio.

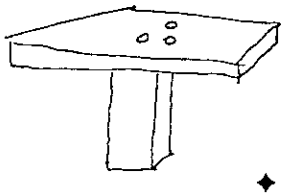
Day Five

Review entries. Were the radio forecasts accurate? Was your own sense of weather changes accurate? Other than which clothes to wear, does weather still affect your life? What plans for work or play do you make based on the forecast?

MILKING STOOL PROJECT

Milking cows was a twice-a-day chore for the Martin twins, who both knew how to balance on the stool, manage the milking, keep the cows from kicking dirt into the bucket, avoid spilling the milk, and swat flies—all at once. Each student can build a milking stool. Emphasize the "homemade" or "making do" efforts of rural people. Point out the blacksmith shop, where repairs were made and everyday items could be produced.

Materials: Scrap pieces of 1 x 8-inch and 4 x 4-inch boards, hammers, nails. Your local lumberyard may cooperate by providing free or very cheaply the necessary scrap lumber for this project. If the lumber is very rough, students can sandpaper the surfaces and edges.



Procedure: Use two pieces of pine lumber, one for the seat and one for the leg. Use a 6-inch square of 1 x 8-inch board for the seat and an 8-inch length of a 4 x 4-inch board for the leg. Center the seat over the leg and secure with nails.

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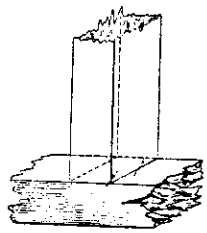
The milking stool project creates a "butt joint," a very rough kind of joining of wood.



Butt joint.

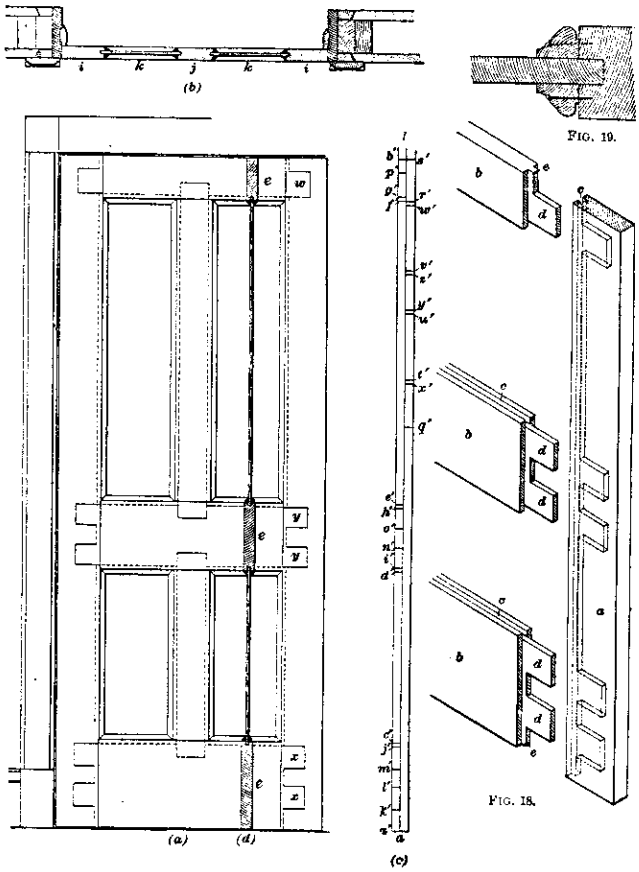


Diagram for framing a four-panel door from an 1899 publication.

Two pieces of wood can be fitted together in many ways, and each of the joints has a special name. A "joiner" does the finer work inside a building, using dovetail, mortise and tenon, and other joining techniques. Although many pieces today are made elsewhere and shipped to a construction site, the joiner of the nineteenth century worked "on site" to make doors, cabinets, and other parts of a house's interior. Just look at the work involved in building a nineteenth-century door.

So what's the difference between carpentry and joinery? Why have these two crafts become one in modern building?

Two of Fred Martin's woodworking projects survived into the 1990s. One is a walnut table that Florence remembers: "Dad made [a parlor table] out of walnut trees that he 'grubbed,' hauled from the Taylor farm. He had some of the trees sawed into lumber to make his table. That table was valued by the whole family and is now in the possession of Warren Pugh." February 19, 1993

The other project, a wooden dry sink, was still in the kitchen when the Archeology Team arrived. See Day Three of the X-Units section on page 151 for details.

PAPER DOLLS PROJECT

Paper dolls were popular for several centuries, and especially during the last hundred years. Although sets of printed dolls and their clothing were numerous, many children played with homemade paper dolls, which were cut from catalogues, magazines, and newspapers. Printed outfits and accessories, or those clipped from publications or hand-drawn and colored, occupied countless hours of play time for girls of many social classes. Even boys sometimes played with paper dolls. For example, paper soldiers were assembled, dressed in uniforms, and provided proper gear.

These paper dolls are of the Martin girls. The twins, Florence and Flossie, are shown at about age 12. Since the girls were born in 1905, in what year did they celebrate their twelfth birthdays?

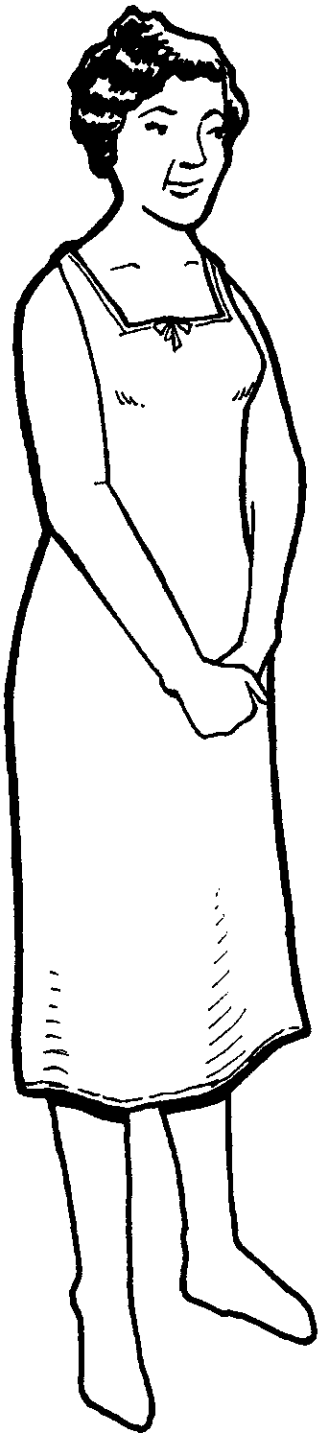
Their mother, Jesse, made all their clothing. Only shoes and coats were ordered "ready-made" from a catalogue. Look at their "sailor suits," a popular style at the time. The blouses are made as "middies" (singular "middy") from the Navy term "midshipman." Why would military styles be popular at this time? The twins' spring sailor suits were white with navy trim.

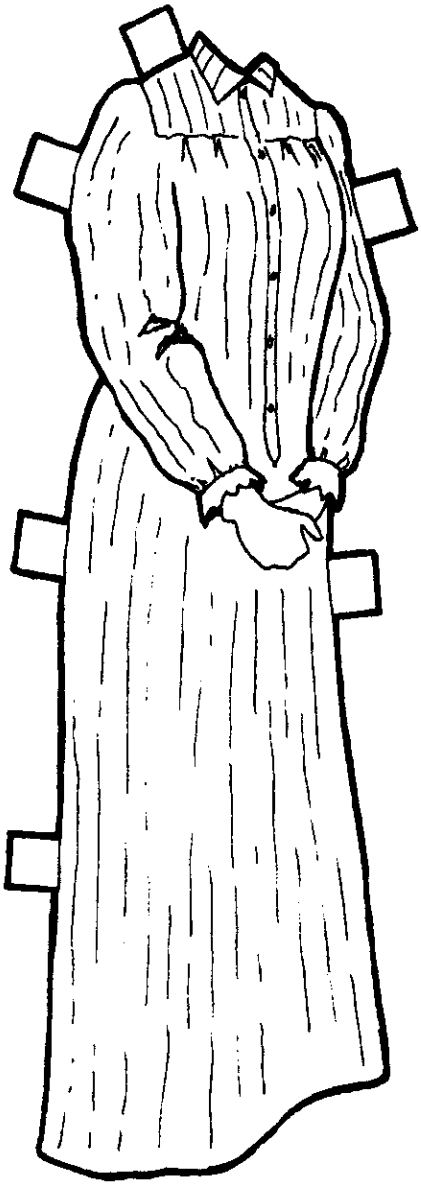
What would the girls' chore clothes have looked like? Remember girls did not wear trousers or blue jeans.

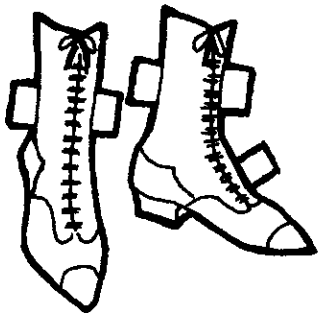
Mrs. Martin made the twins' big sister Rose's clothes too. (See Handout #4 on page 91.) Rose's school outfit would have been navy or black with white trim for fall and winter wear. When Rose married in 1920, her mother made the bride's gown, and the ceremony was held at the Martin farmhouse. Find out what styles were popular during that time. The pattern probably came from either a newspaper column or one of the many dress patterns offered in "ladies magazines." Dress the Rose paper doll for her wedding. What kinds of decorations do you imagine the house wore for the wedding? What kinds of food would have been served to the guests? Compare modern wedding "standards" with those when Rose was married.

Paper dolls and Barbie dolls have a lot in common. Talk about the similarities and why there are some differences. Paper dolls and "action figures" also have a lot in common.

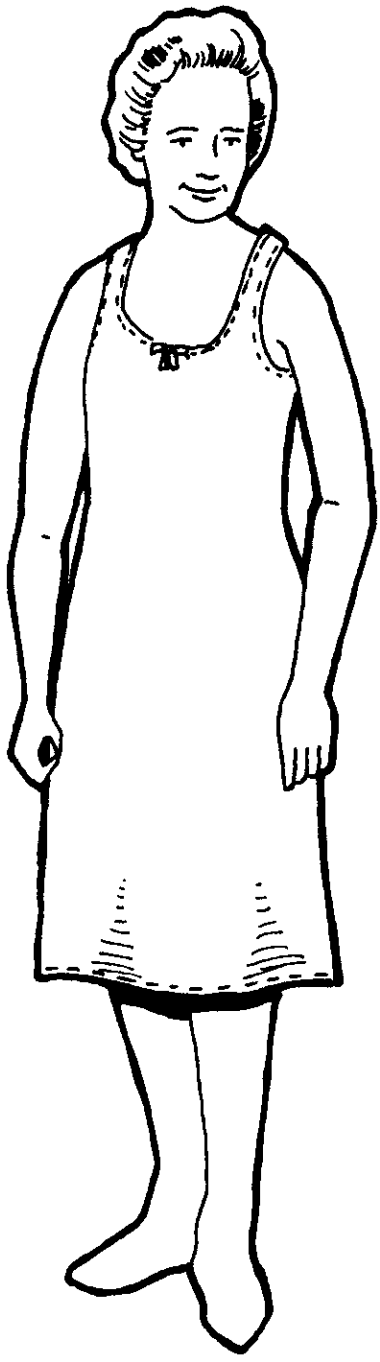
Rose Martin

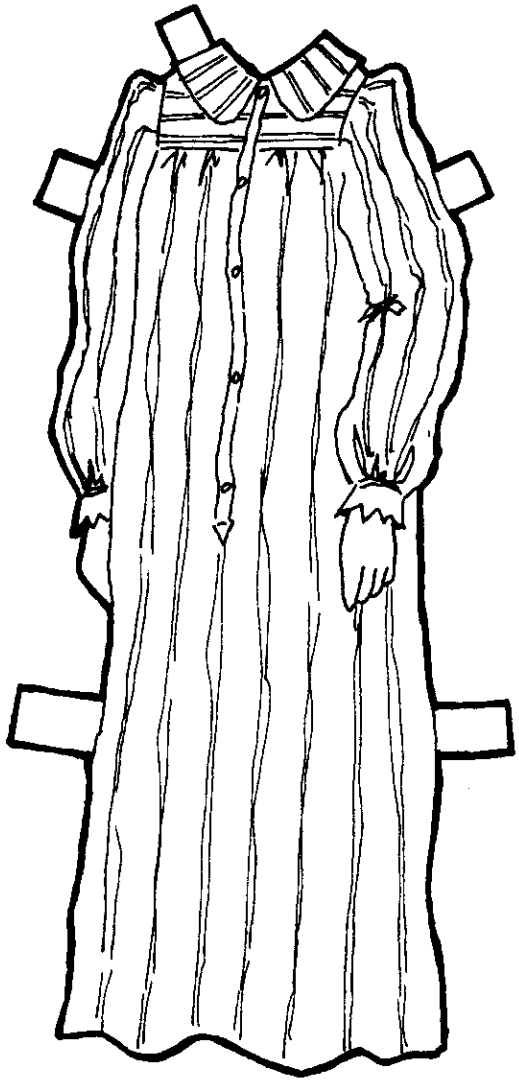




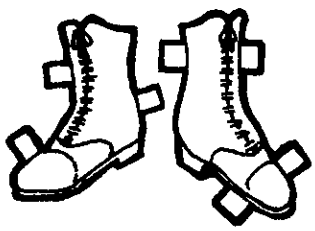


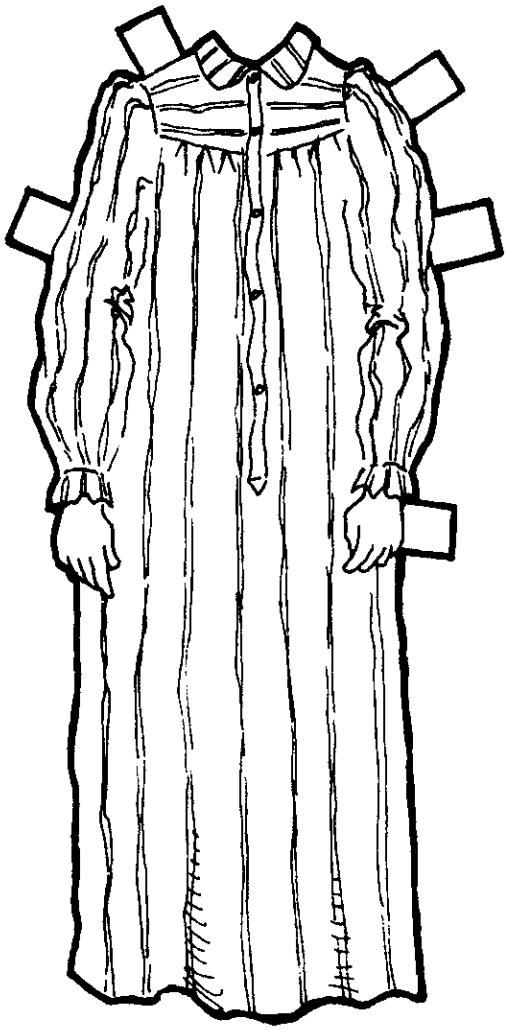
Florence Martin

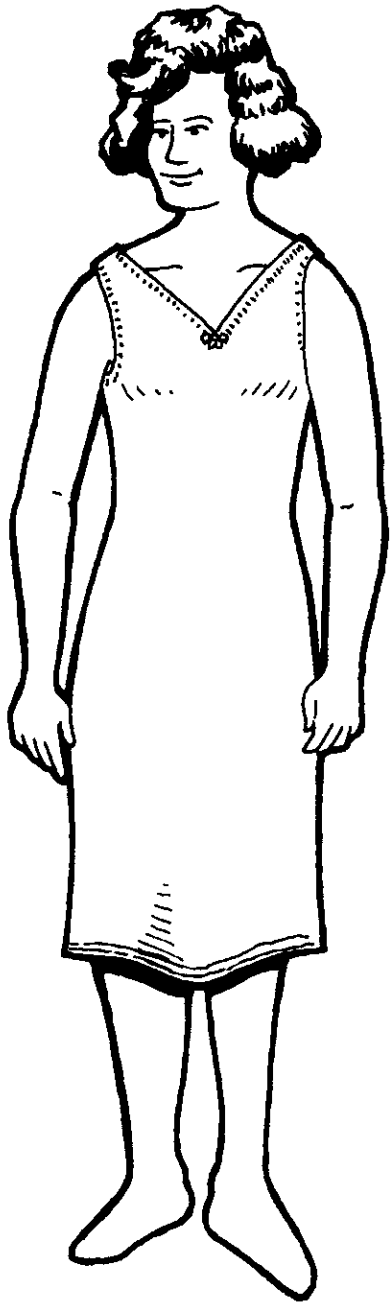




Flossie Martin

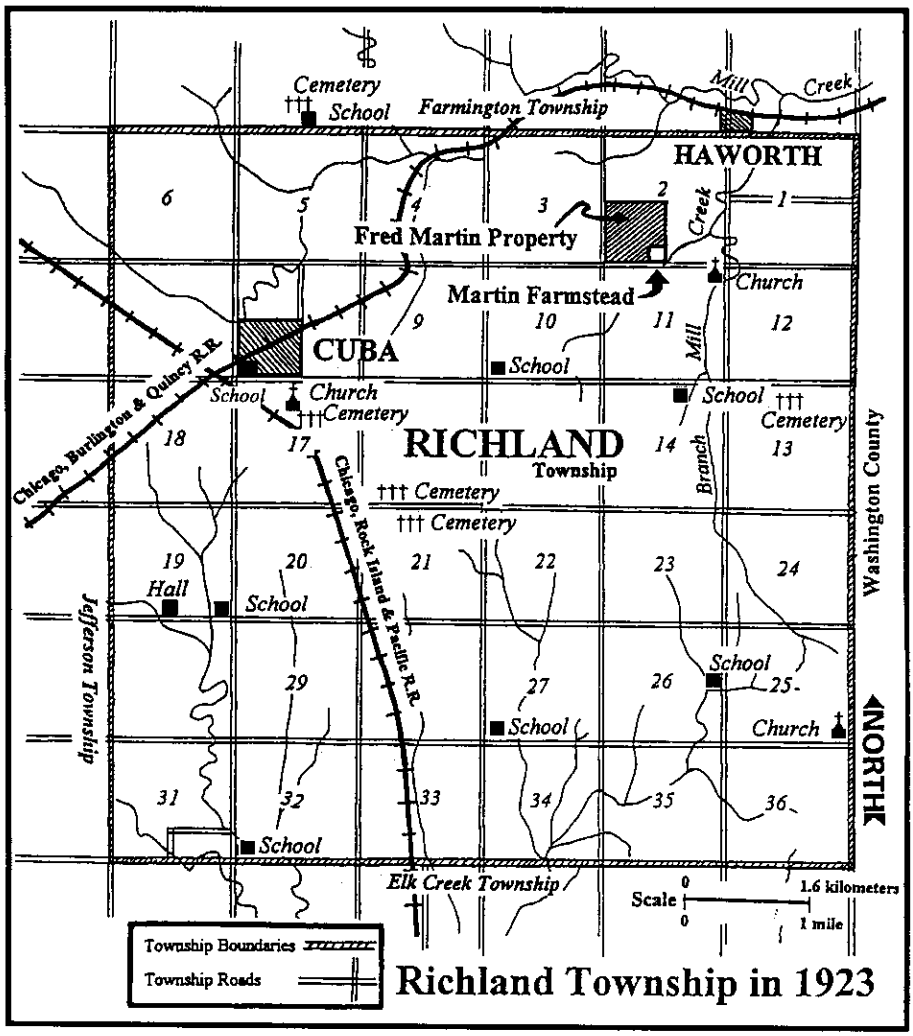






WORKSHEET/ACTIVITIES/VOCABULARY

Day One **1923 Richland Township Map**

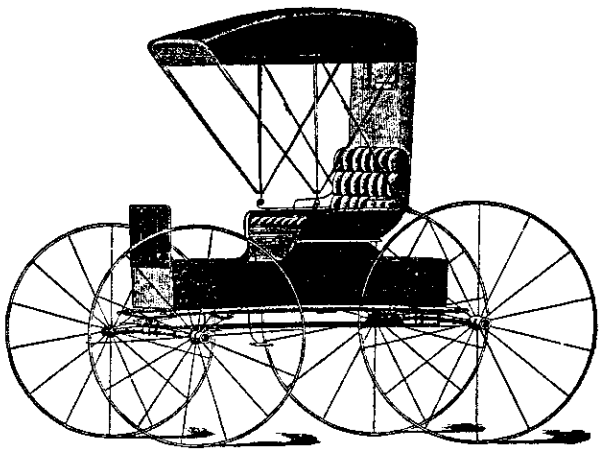


Vocabulary: Bohemia
cardinal directions
emigration
farmstead
immigration
semicardinal directions
sod

Social Studies:
Determine orientation, year, and scale of the township. Make sure students understand that this is only one township of Republic County. Use a modern Kansas map to name Republic and surrounding counties and to identify the Nebraska/ Kansas state line. Help students find the Martin property, Cuba, Haworth, the Burlington Railroad, etc. Discuss how roads, bridges, and populations change over time. How important were the railroads to Cuba, Kansas?

Martin hauled cream and butter to a railway pick-up point at Haworth, a community on the Burlington Railroad line.

This railroad and others transported farm products from the Haworth stop and many other small communities to Concordia in neighboring Cloud County. Talk about the interdependence of town and country, the relationship between railroads and farmers, etc.
NOTE: Local residents referred to the railroad as the "Burlington." However, it appears on the 1904 map as the "Burlington and Missouri River RR" and on the 1923 map as the "Chicago, Burlington and Quincy RR." As Archeologist Schoen says, records are as easy to misinterpret as archeological information.



Spring buggy.

Discuss land ownership and the system of governmental institutions required to administer mapping, sales, records, transfers, disputes, etc. New settlement laid heavy burdens on residents to create community services and institutions through taxes and participation. How many schools are there in Richland Township in 1923? Count the number of times roads cross creeks, necessitating culverts, bridges, or other road work. How many miles of road were there to maintain in this township in 1923?

James Klima immigrated from Bohemia to Iowa in the United States when he was 21. His wife, Margaret, came with her parents from Bohemia to Iowa at age six. James and Margaret settled in Richland Township, Kansas, where many of their neighbors shared ties to Bohemia. Talk about some of the reasons this happened. Also discuss the difference between a childhood in America and immigration as an adult. Be sure to locate Bohemia on a globe or map.

✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦

Language Arts: The Martin girls milked cows as part of their daily chores. Usually one of the girls accompanied her father on the trip to Haworth to take dairy products to the train. Ask students to write and perform a skit or vignette of a conversation between father and daughter. Compare with a recent conversation between students and parents.

Make a diary entry for the day the Klimas paid their filing fee for the property. Describe emotions, plans, concerns from either Margaret or James Klima's perspective. Did the couple share the same feelings and worries?

✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦

Math: Using the scale, determine how far (by roads, not "as the crow flies") it is from the farm to Cuba, where the Martins did business. How far to Haworth, where the Martins took their dairy products for transport? How far to Bates #51 School, located south and slightly east of the farm? See Day One of the Florence Remembers section on page 127.

What do these distances mean to a farm family whose transportation is a team of horses and a buggy? Check a modern map of the county. How far apart are the small towns? Why?

Take some measurements of angles in the classroom. Note the predominance of 90-degree angles on the worksheet, modern building, furniture, roadways, etc.

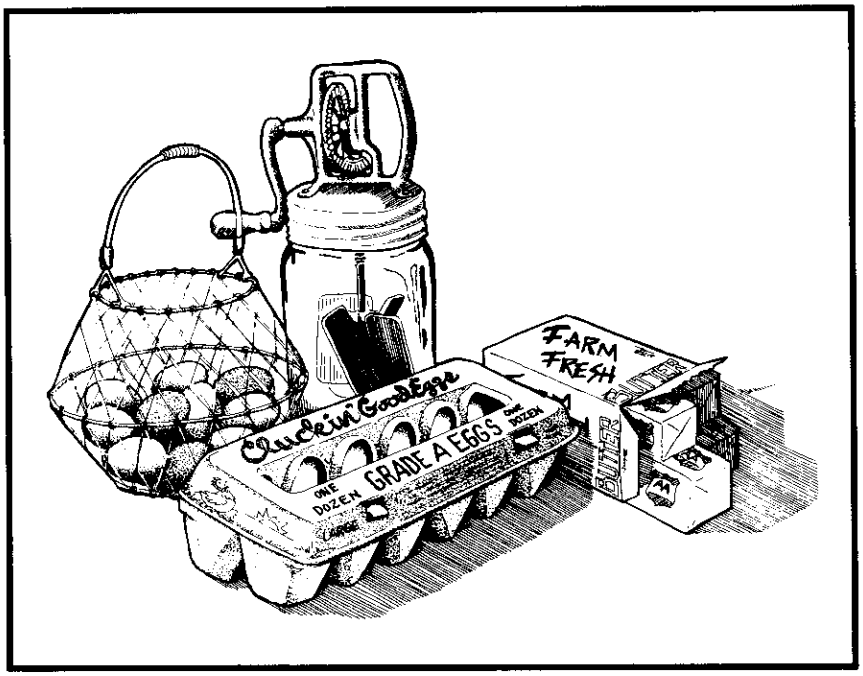
Science: Richland Township is in the eastern part of the Smoky Hills of Kansas. The mixed-grass prairie here is a specific environment that students can investigate: rainfall, temperature norms and extremes, winds, topography, geology, flora and fauna, etc.

A widely held belief in the nineteenth century was that "rain follows cultivation" or "rain follows timber." Discuss these theories with students. What is correct/incorrect about these ideas? Where did people get information about science, weather, etc.? How did maps portraying Kansas as part of "The Great American Desert" contribute to popular beliefs?

There are many ways of identifying a space. Archeologists identify the Martin farmstead as "14RP322." County records describe the same property as "SW¼ of Section 2, Township 3 South, Range 1 West." Can students think of other ways a piece of land is identified?

Find Mill Creek and follow the west branch to the Martin farm. The creek was actually moved slightly east during construction of Highway 39 in 1939. How do farming and its new technologies affect the landscape and the environment? The creek once ran through the farm's pig pen. Compare the impact of a small farm's hog raising with the corporate hog operations. See the Farm Records section on page 138 for numbers of hogs raised at this farm.

Day Two Butter and Eggs



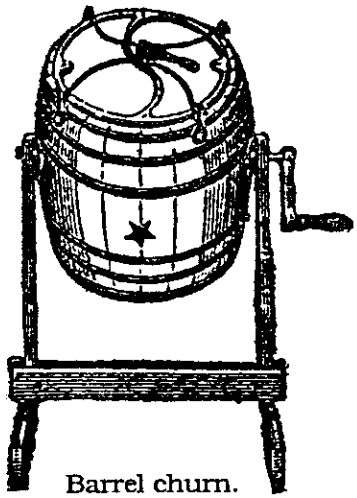
Vocabulary: agriculture
animal husbandry
horticulture
subsistence

✦ ✦ ✦ ✦ ✦

Social Studies: Twins Florence and Flossie Martin milked cows twice a day as part of their assigned farm chores. They also gathered eggs and cleaned the chicken house. Dairy and poultry products provided both food and cash for the family. The daily care of cattle and chickens was part of the farm's routine, as regular as a clock. Ask students to draw a 24-hour clock and note possible activities for each hour of the twins' day.

Here is a PARTIAL list of their work: rake, plant, plow, cultivate, milk cows, gather eggs, pump water for livestock, separate cream, churn, clean barns and sheds, fork hay, dig potatoes, pull weeds, feed pigs. Remember that they also went to school, played on the swing in the yard, and helped their mother with laundry, gardening, preserving, etc. Students should compare their own 24-hour day's chores with those of the Martin children.

OPTION: See Day Two of Time Line section on page 131.



Barrel churn.

Compare the Martin family's butter and eggs (butter represented by the Dazey Wheel churn in the worksheet drawing) with today's products and packaging from the store. How much time each day today is spent in securing these items? How does cash flow differently from the cash flow of a subsistence farm family? Bring a dozen eggs, a box of butter, and a gallon of milk to examine closely for packaging, grading, "middle men," etc. What trade/ marketing systems were in place for the Martins to earn money with dairy and poultry products? Compare the Dazey Wheel churn with the barrel churn. Which could handle more cream? Which was more sanitary?

A flock of chickens provided eggs and meat for family food and cash for Mrs. Martin. Over the years, Jesse Martin's poultry operation proved to be a more reliable source of money than Mr. Martin's dairy. If her husband needed money, she shared with him, and he returned the favor if she needed cash. Although the word "farmer" sounds like only one person, in fact on most family farms the term could be more accurately defined as a husband/wife partnership that cooperatively works to build a business using products from the land. Their children are part of the family business, too. What advantages and disadvantages does a family-operated business present? Why did the Martins divide the labor into "his" and "hers" jobs? How did the children contribute? How might chores have been assigned if the Martin family had included some sons?

Discuss differences between horticulture, such as that practiced by the native gardening peoples of Kansas, and agriculture, such as that practiced by the Martin family.

Language Arts: Use the Farm Records section on pages 136-139 to interpret numbers, yields, acres, harvests, disasters in words rather than in numbers. Examples: proud, worried, hopeful, etc.

Divide students into four groups. Secretly assign each group a farm setting. Groups use only SOUNDS. Can classmates identify season, space, time of day? Examples: porch/August noon, cow barn/June morning, horse barn/April evening, kitchen/January night.

Ask students to write a poem or chant to accompany the task of churning. The rhythm of the work changes pace as it progresses.

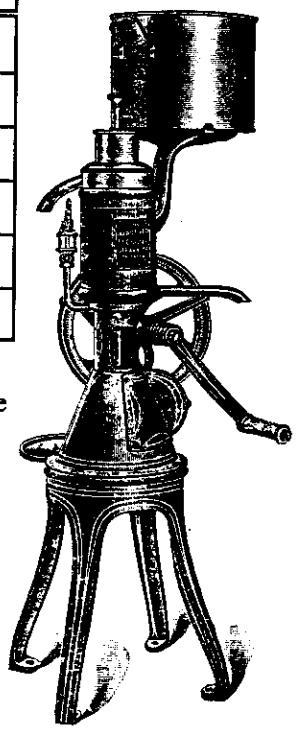
✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦

Math: Use the following figures from county census reports for story problems. Older students could determine percentage of increase or make graphs, etc.

Year	Farm Operation	Number of Milk Cows	Pounds of Butter Sold
1875	Klima	1	50
1885	Klima	6	300
1895	Klima	9	600
1905	Lang	5	200
1915	Martin	5	200
1925	Martin	2	100

✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦

Science: Fresh whole milk was processed in a special room on the farmhouse porch. This room held a cream separator, a hand-powered machine that separated the cows' milk into cream and skim milk—a much faster process than the earlier method of waiting for the milk and cream to separate naturally. Pigs consumed the bulk of the skim milk, while most of the cream was sold. Several hundred pounds of butter made from the cream brought in cash each year. Compare milking, separating, and churning by hand with modern methods. Labor-intensive farm work, such as the Martin dairy, has been replaced by electrical power and machines, although animal husbandry responsibilities continue. Inventions, technology, and changes over time are good discussion topics.



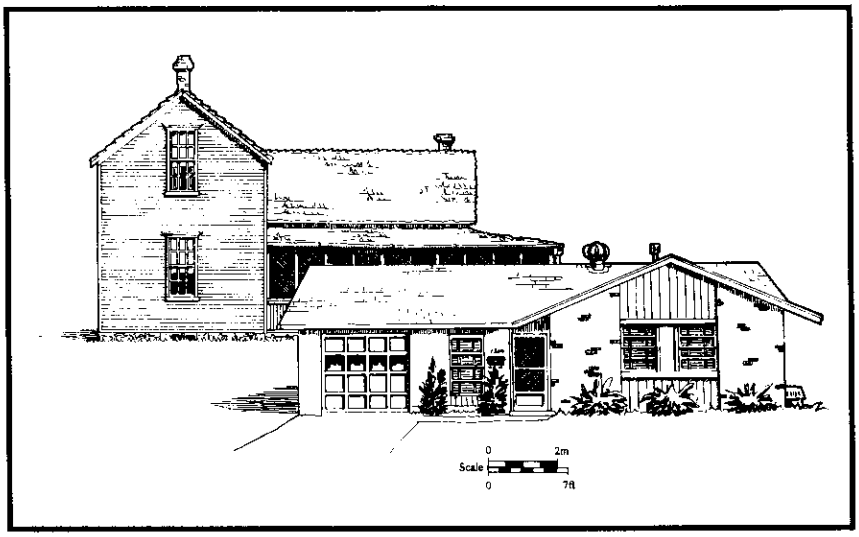
Cream separator.

Find out how a churn works using a tightly sealable container and a pint of heavy cream. Explain the process. Compare the Martin dairy operation with modern dairy equipment, costs, size of herd, and transportation.

Hybrid seeds, modern equipment, and veterinary medicine and improved genetics have made big changes in agriculture. Find out about hybrids or research livestock genetics. Milk production and eggs are important parts of the life cycles of mammals and birds. Selective breeding has changed production dramatically in the past 50 years. Hydraulics is an area of implement technology. A local implement dealer can provide pamphlets detailing how the new machines work.

Find out what it takes to "candle" an egg, an early form of grading quality. Note the modern packaging and its prominent "Grade A" or "AA." Ask your county agricultural agent for information about grading agricultural products.

Day Three Modern House/Martin Farmhouse



Vocabulary:
extended/nuclear family
rod (measurement)
rural
suburban
urban

✦ ✦ ✦ ✦ ✦

Social Studies: These houses are separated in time, location, and purpose. Help students establish some of the differences in building materials, methods of construction, etc. (The farmhouse is shown as it looked in 1910; the modern ranch-style house, as it appeared in 1972). Lead a discussion of some structural and cultural similarities. What elements do they share? The farmhouse served as shelter, but it was also a busy work space with areas for food preparation and preservation, clothing production, etc. How do students' own houses serve their families? Where does most preliminary food preparation/ processing/preservation and clothing production take place today?

A house is divided into all sorts of spaces. Walk around the school inside and out. Identify learning/teaching, food preparation, recreation, storage, mechanical systems, transitional, and other areas. Discovering ways in which particular spaces are used and how that use changes can be part of the lesson. (Example: A stage can be a learning area if your school's band rehearses there, a public recognition space during an awards assembly, or an entertainment area during a play.) What are the restricted areas (restrooms, teachers' lounge, offices, etc.)? Chart results of the investigation. A homework assignment could be to do the same for students' own houses. Be sure to discuss how our culture teaches us to identify and conform to these boundaries.

Compare the porches. Can students make some observations and propose ideas for the differences? What else might a structure reveal about the lives and times of its inhabitants?

Mr. Martin built a separate (detached) garage in the 1920s. At first it sheltered the family's first car, a used Model "T" Ford. What does the modern house shown here tell us about the importance of automobiles in our lives today?

Who lived here? The Martin family consisted of a husband and wife and their three daughters. Archeologists (who are anthropologists) call this a nuclear family. Grandchildren and their parents returned to visit but not to live. Consider traditions of the present and past. Many native Kansas peoples had traditions for housing extended families in one house. Modern families can include many different arrangements. What advantages/disadvantages are there in making a nuclear family the basis for family living? The extended family? How would house shape, size, placement, and use be alike and different to accommodate various kinds of living arrangements?

✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦

Language Arts: Using personification, "speak" as the house. As a creative writing opportunity, students could choose to describe an element of the house (such as the limestone being cut from the ground and shaped into blocks) or what the house feels like in 1903 when its new "skirt" (porch) is added. Some might write of the archeological excavation itself, with forgotten objects coming to light.

Point out the mailbox on the modern house. Before Rural Free Delivery brought mail to people in the country, folks went to the nearest town that had a post office to send or receive letters and packages. Mail-order businesses, such as Sears, Roebuck and Company and Montgomery Ward, flourished. Although Mrs. Martin made all the girls' clothing, she ordered their coats and shoes from a catalogue. Have students write a letter to Sears, Roebuck and Company ordering a coat or shoes. Letters were as common as order forms; the catalogue promised delivery if a clear description were provided, so emphasize clarity.

What sights, sounds, and smells could be discerned from the porch of each house? Are there big differences and a few similarities? Discuss how differences can still share a common purpose. (Example: Horse, buggy, and dirt roads comprise a transportation method, just as a car and paved roads do.)

✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦

Math: Archeologists use the metric system to measure sites and most artifacts and features, although some items (such as nails) are reported using the English system. Ask students to convert these stone cabin exterior measurements to metric: 17 feet north to south, 19 feet east to west, 10.5 feet high at eaves, and 16.4 feet high at peak. Students could use chalk to draw the dimensions of the cabin on the playground.

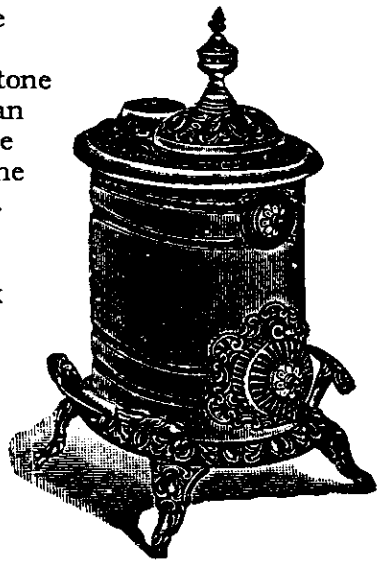
Part of improving the property in the first years of the farmstead required fencing, which is measured in "rods." By 1885 the Klimas had built 70 rods of fence: 30 rods stone, 30 rods wire, and 10 rods board. How many feet of each fence type had they built? Other story problem possibilities abound. Examples: The stone cabin portion of the farmhouse was built about 1885. How old would it be now? The farm operated as a subsistence farm from 1875 to 1947. How many years is that?

✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦

Science: A house is a collection of systems (electrical, heating, cooling, plumbing, etc.). The Martin farmhouse was never electrified. Kerosene lamps provided light. A cooking range in the kitchen and a heating stove in the parlor provided heat in cold weather; both were fueled by wood. Air flow for cooling was controlled by windows and doors. The screened porch helped, too, and the thick walls of the stone portion of the house provided insulation. An outdoor toilet (called an outhouse or privy), a dry sink in the kitchen, and a well south of the porch comprised the plumbing for the house. A rain barrel below the drain spout on the southeast corner of the porch caught soft water. One convenience the Martins always had, though, was a telephone.

With a school custodian, tour the school's building systems. Compare Martin-era systems with those in a modern house. Check the roof of each house for evidence of ventilation. Talk about energy sources for both houses and impact on the environment. How are each house's systems dependent on the outside world. What work does it take to keep each set of systems running? Who does that work?

Discuss properties of heated and cooled air. Take some temperature readings in the classroom (ceiling, floor, windows, door). Which rooms in the Martin house would have been coolest in summer and warmest in winter? Why?

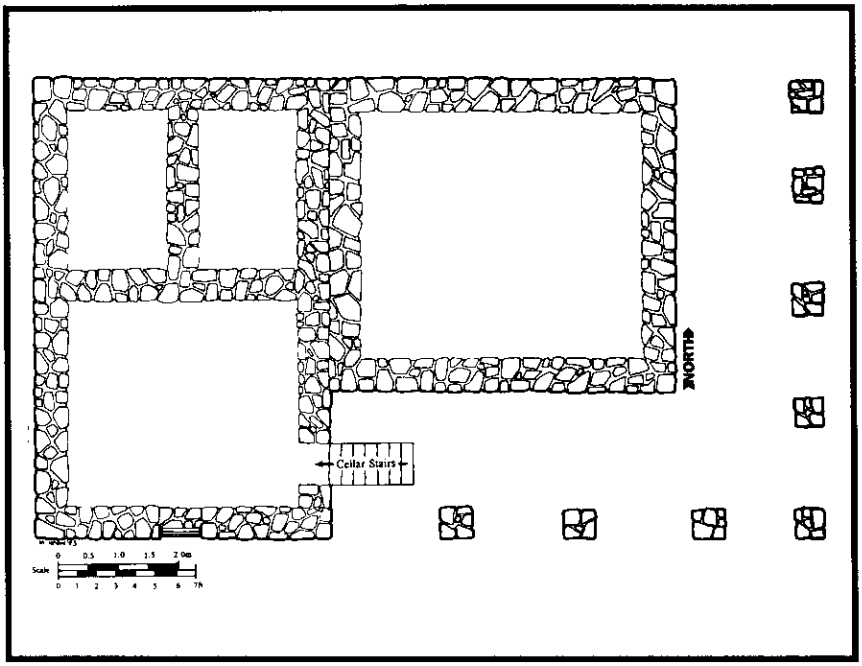


Wood-burning heating stove (without stove pipe)

Measure each student's individual consumption of water for one day. Does it make a difference how much each uses if he/she is carrying it? Find out about your community's water treatment system and how water enters and leaves your house/school.

Other discussion topics include water tables, water pressure, how a hand pump works, etc. What impact does one farm have on water resources? What about a small community or a city?

Day Four Farmhouse Foundation



Vocabulary: cellar
limestone
mortar
pier

✦ ✦ ✦ ✦ ✦

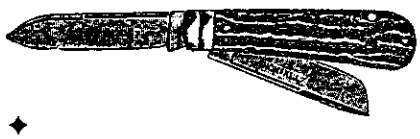
Social Studies: The eight square stacks of limestone are called "pier" supports. What did they once support? What else is missing? (The two-story frame addition on the west was gone when archeologists investigated, but the cellar and foundation remained.) Day Four of the Florence Remembers section on page 129 emphasizes that the life of the house's occupants was once vital and is part of the structure's history.

Ask students to identify the 1885 cabin and 1903 addition foundations. They could draw lines to indicate the porch and cream separator room.

Discuss the builders' north-south-east-west orientation. How does house orientation to a site help heating and cooling needs? Ask students to make a list of examples they find in their township of the grid system, specific building orientation, etc.

✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦

Language Arts: Under the floor of the cabin, which served as the Martins' kitchen, archeologists found (among other artifacts) a scrap of blue floral wallpaper, two pocketknife blades, and two sewing needles. Write a story about the day any one of these artifacts fell between the cracks of the floor and was lost until the 1990s.



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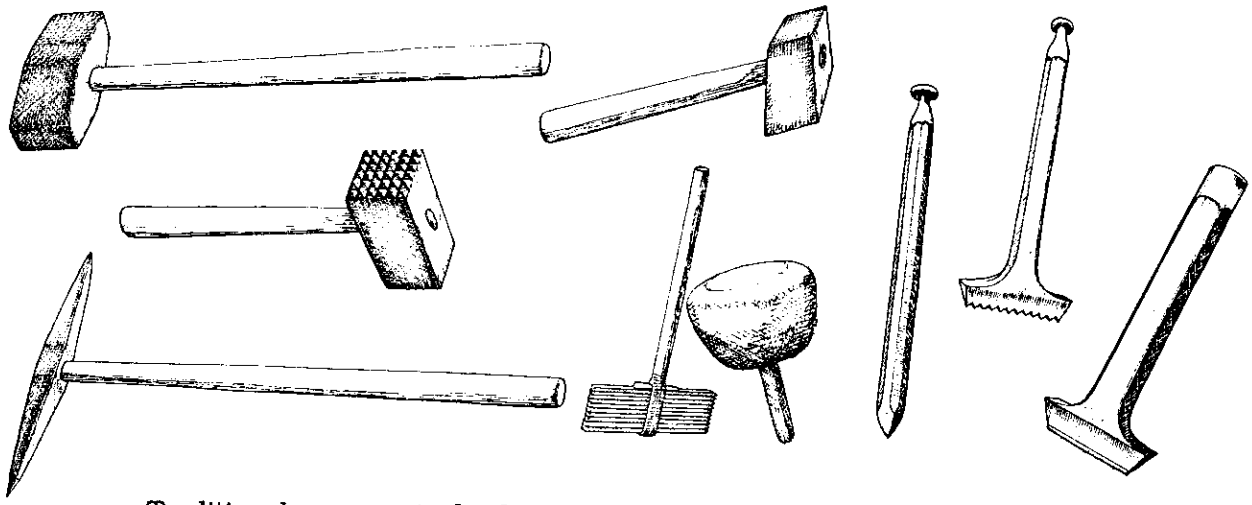
Math: Using the scale, figure square footage for each room. Remember the cellar below the parlor (southwest corner). Also, the northwest room is the master bedroom, not two rooms. Measure the thickness of the stone foundation.

"Furnish" the cellar according to the following data. Two 10-gallon crocks (one for preserved fried meat and the other for sauerkraut) sat side by side on the earthen floor in the middle of the cellar. Each crock measured about 1½ feet wide at the base and mouth. A rectangular potato bin sat in the southwest corner with its long side against the west wall. The bin measured 1½ x 2½ feet. Storage shelving (also rectangular) in the northeast corner with a long side against the east wall measured 1 x 4 feet.

Science: The stone foundations were held together with mortar of powdered limestone and sand. This light yellow mortar allowed enough flexibility for the stones to move as the house settled, thus preventing breaking of stones and opening of joints. Because lime mortar sets when carbon dioxide from the air combines with hydrated lime to form calcium carbonate, the surface hardens first, and it can take months or years to cure the interior of the mortar. Experiment with

"curing" by trying some bonding agents such as white glue and rubber cement. Explain what happens. Talk about the advantages and disadvantages of masonry versus carpentry.



Traditional masonry tools: hammers, pick, crandall, mallet, point, chisels.

✦ ✦

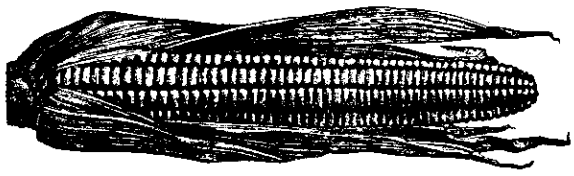
Day Five Celebrate Kansas Archeology

Hold a celebration to emphasize conservation of archeological sites and commitment of students to preservation. Invite parents or another classroom to join the activities. Serve homemade bread (bakeries have unsliced loaves), real butter, and apricot preserves. Decorate the classroom with a clothesline with overalls, aprons, and bandannas hung with peg-style clothespins.

Review the week's learning, with students offering selections from the Florence Remembers section, orientation practice, farmstead building histories, farmhouse interior descriptions, explanation of historical archeology, and X-unit maps, etc. Remember to include a county records spokesperson and an archeologist in explaining multiple lines of inquiry. Display and demonstrate the week's projects.

Florence Martin Cundiff remembered a lot of details about her home including sizes, materials, techniques, and orientation of buildings and furnishings. Can students estimate sizes of various objects and spaces in the classroom? Have students measure once they have given estimates. Present a tray with many items on it; then ask students to use their memories to list items from the tray. Blindfolded students could list details about the room, such as number of lighting fixtures, number of electrical outlets, number of shelves, and other details.

Identify farm products in the room. While food and fabrics will be more obvious, seek the more obscure: corn products, for example. Look on ingredients listings of vitamins, glue, paint, lipstick, and other products. Key words to look for are dextrose and fructose. All paper except newsprint contains corn products. All metal contains corn too. In fact, nearly everything in a grocery store except fresh fish has been "touched" by corn. Vegetable and fruit produce sprayed with insecticides or preservatives has been touched by corn. Packaging depends on the chemically manipulated by-products of corn. Almost everything in our modern world has been touched by corn ... so ears and kernels are only a small fraction of the importance of this farm product, both to consumers and to agribusiness.



Play "Button, Button, Who's Got the Button?" or "I Spy," two popular parlor games. Here are some other games to play.

Eggs in a Bandanna Relay: Hard boil a dozen eggs and put them in a basket. Mark a route that each player will follow. Divide the group into two teams. The first player of each team makes a pouch out of the bandanna, loads it with six eggs from the basket, follows the course as quickly as possible WITHOUT CRACKING THE EGGS, returns to the team, and unloads the eggs into the basket. The first team through with the most uncracked eggs wins.

VARIATION: Eggs are placed at six points along the course. The first player on each team gathers the eggs in the bandanna. The next player is "hen," taking the eggs gathered in the bandanna by first player and replacing them in the positions along the course. The players alternate gatherer/hen until the first line through is the winner.

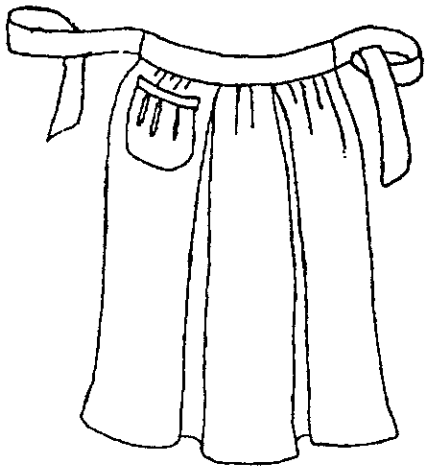
Hang Up Clothes Relay: Use peg-style clothespins, clothesline, and a basket of wet bandannas. Divide the group into two teams. Each player retrieves a wet bandanna, gets two pins, goes to line, properly shakes out the bandanna, pins two corners and returns to tag the next player on team.

Other entertainment included reading aloud of books, telling of stories, and recitation of poetry. Parents and teachers valued memorization. Do you suppose that's why Florence remembers so many details? This modern poem describes an article of clothing that was common in farm kitchens.

Grandma's Apron

With a bib or 'round the waist,
With dust of flour it oft was graced,
Or splashed with cream as butter churned,
Or full of pins as hems were turned.
With corners gathered it made do
To carry a fresh egg or two,
And deep within its cotton pleats
A pocket filled with candy treats!

For cooking, baking, child caretaking,
Sewing, churning, money earning,
Uniform from fall to fall
(Just like Grandpa's overalls),
Grandma's apron stands for strings
That bind our hearts' rememberings.



Ramona J. Willits

READING

Getting Ready "A Place to Call Home . . ."

When people pack their possessions and prepare to move to a new home, they take along more than extra clothing and building tools. They also carry with them a lifetime of ideas about how their new world should look. A million assumptions travel with the settlers, already influencing the shapes their new farms, houses, and towns will take.

As Kansas opened for settlement in 1854, the Territory seemed a land of opportunity for farmers, although it often had been labeled "The Great American Desert." Newcomers and their baggage arrived from near and far. Some were experienced pioneers whose families had been gradually moving westward for generations. Some made the move for political reasons, dedicated to Kansas statehood and the abolition of slavery but inexperienced with pioneering. Others came from Europe, fleeing oppression or seeking new land, but with traditions rooted in old homelands. Over the next 50 years they came by the thousands—experts and novices alike—to try pioneering in Kansas.

A basic rule of pioneering in all cultures is "making do." The new arrivals needed shelter. To survive they had to adapt their imported ideas of "home" to fit the land's weather, water, hills, and plains. As native peoples before them had done, Kansas' new settlers used the natural resources they found—timber, sod, and grass. They felled trees to make log houses or rough-cut frame structures. Where timber was scarce, they cut building blocks of sod and used prairie grass for insulation. Some dug into the hillsides for shelter. Others made houses of shaped native stone, pried from ancient ocean floors. They built houses of all shapes and sizes across the countryside. Year by year, people changed the land as the land changed them.

Our culture teaches us how to view the world. Individual claim to a stretch of land and a system of ownership were powerful imported ideas. The Euro-American system assigned invisible boundaries that divided the land at right angles, forming a grid with names and numbers recorded on maps. Because the new Kansans had written language, they left a wealth of historical information on paper to tell the story of all these changes.

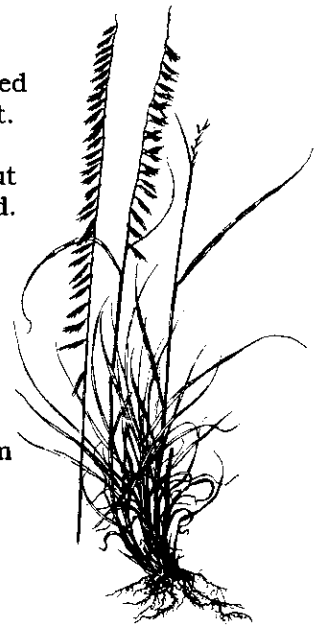
The land itself can speak to us of things past. An old farmstead reveals the laying of foundations, the stacking of stones, the building up and the digging down, for all of these events leave marks upon the land. These messages are still legible, and their story is part of the state's cultural heritage.

✦ ✦

Day One "Little Patch of Prairie"

For many thousands of years, the little piece of prairie land looked much the same. Rainstorms, dry winds, fires, and blizzards swept over it. Along the small stream seedlings grew to saplings, and some survived to maturity—tall trees able to make seed themselves. Prairie grasses put out new rhizomes, covering the gently rolling hills with a tough blanket of sod. Stone above and below the surface weathered slowly, surrounded by the busy lives of small creatures. Many generations of animals came and went. Bands of people seeking food arrived to hunt and gather. Later, nearby gardening people watched the big blue sky above for signs of weather. Century after century, the look of this land altered little.

Then, almost in the blink of an eye, the little patch of land changed dramatically. Rumble! The wheels of a settler's wagon rolled over the north slope. Bang! Hammers and wedges pried lengths of limestone from their ancient beds. Chop! Tall trees felt the bite of metal axes and fell. Rip! Plows cut into the tough native sod, turning furrows of soil toward the sun. Snap! Harnessed oxen and horses traveled to and fro, making new trails across the land. Farming people with new traditions and technology had arrived, claimed ownership and set to work. Life here would never be the same.



Sideoats gramma (*Bouteloua curtipendula*)

Day Two "In the Smoky Hills"

In the Smoky Hills of Kansas, the wind blows mostly from the southwest, headed for Nebraska, Iowa, and beyond. The people who farm these hills and valleys listen to the wind, and they watch the sky. Signs of a change in weather are important here, for the ups and downs of the thermometer and rain gauge can bring success or disaster.

Take Republic County, for example, in the eastern Smoky Hills. For 100 years its land has been about 95 percent farm and pasture. About every 10 miles or so a little town appears—just a small dot on the map, connected to other dots by miles of roads. In between are large sections of "blank" space. In these wide stretches between the dots grow the crops and grass and cattle that feed the county's economy and shape its character. Farming is a way of life here, and watching the weather is a tradition centuries old.

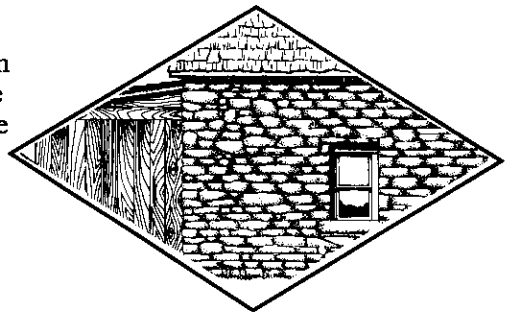
Long before the first steel plow cut into the prairie sod, the ancestors of the Pawnee tilled small garden plots along the streams, using tools of stone and bone, growing mostly corn and beans. The fields of Republic County are bigger now and so are the yields—huge harvests of corn, soybeans, and milo. Nowadays the wind carries the sound and smoke of big tractors and combines up toward Nebraska.

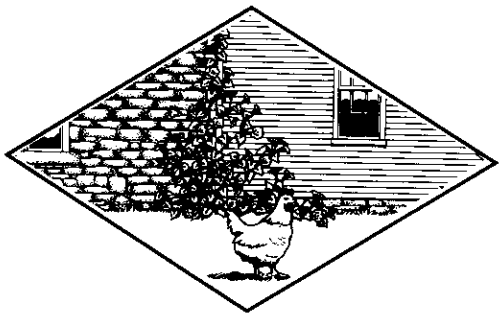
Sandwiched between ancient and modern agriculture is a century's worth of history—a slice of time when the State was still young. Farming was horse-powered; every season brought more acres of plowed ground. Back then, most farms were family-owned and small by today's measure. What the land produced fed the family. With hard work, horse sense, and a bit of luck, a good year brought enough "extra" to sell for cash or trade for goods in town. The rhythm of this subsistence way of life beat unsteadily season to season, depending mostly on the weather. And here, as elsewhere in the world, the economy with all its ups and downs took everyone for a roller coaster ride.

The Martin farm in southeastern Republic County was just such a place back then. Through its farmhouse passed three Kansas families, each with a different birthplace. From down the road or the county next door or all the way from Bohemia, these couples and their children came, laden with their own ideas and traditions, yet sharing a way of life that bound them to work the land.

Day Three Four Views of the House

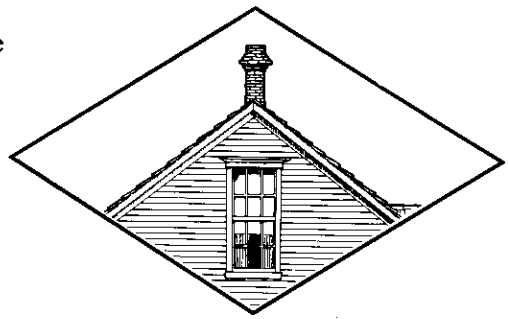
North side of Martin farmhouse. Left, wooden frame room on the porch, enclosed by Fred Martin soon after 1910. The little room housed a hand-powered cream separator for processing whole milk. Right, portion of the stone cabin built about 1885 during the Klima years. The cabin was of Greenhorn limestone blocks with lime mortar. The Klima, Lang, and Martin families each lived in this cabin, which remained the center of the home. At the time of the archeological work, only the stone part of the farmhouse remained intact. County census reports and other records showed ownership history.

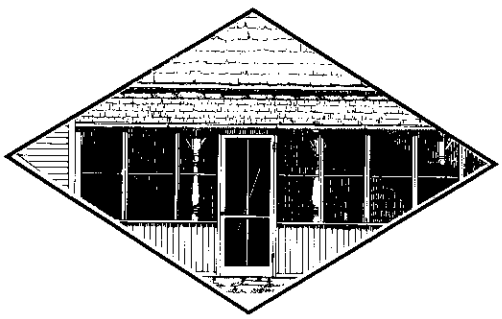




North side of Martin farmhouse. Left, portion of the stone cabin that served the Martins as their kitchen, a central work space for Mrs. Martin and a communal gathering place for the family. Processing, preparing, and preserving foods were essential tasks for survival. Meat, vegetables, and fruits produced on the farm supplied most of the Martins' food. Right, portion of the two-story frame addition built about 1903 during the Lang years. Mrs. Martin ordered lace curtains from a catalogue to hang at the downstairs windows of the master bedroom and parlor. At the time of the archeological investigation, only the foundation of this addition and the cellar below remained. Old photographs helped guide the excavation.

South side of Martin farmhouse. A two-story frame structure added a parlor and three bedrooms to the house. A heating stove in the parlor on the first floor vented through a brick chimney. When the Martin girls climbed the stairs on cold winter nights, they left the parlor door open to channel heat upstairs. Archeologists learned important details about the house from the recollections of one of the Martin daughters, Florence.





South side of Martin farmhouse. The screened wrap-around porch was added about 1903 during the Lang years. The porch served as a transitional space between indoors and out, keeping the mess of stove kindling, muddy boots, and milk processing out of the kitchen, yet protected. In warm weather the Martins ate on the porch, where a breeze fanned the air. Mr. Martin could even take his 20-minute nap here after the noon meal. When archeologists arrived, the porch was already gone—screens, doors, rain spout, and all. Using written sources and the evidence at the site, the Archeology Team pieced together the story of this Kansas farm.

FLORENCE REMEMBERS

Day One School and the "Dark Dungeon"

Florence Remembers School: "We attended Bates school #51. It was a mile south and a bit east of our farm. We went thru fences, gates and John Chizek's farmstead—around the corner of a cornfield and crossed a creek (usually no water in it) to get there. There was a hill close to the school ground where we had slid down on our sleds when there was snow. There was a high bank close to the creek across the road from the school house. We spent our noon hour swinging on a grape vine swing. Oh! What fun!" January 13, 1996

Locate Bates #51 Schoolhouse and mark Florence and Flossie's route to school on the Richland Township map on page 92 or 115. Find the creek across the road from the school where the children spent noon hours swinging on grape vines.

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Florence Remembers the "Dark Dungeon:" "The hallway had 4 doors—one into the living room [parlor], one into the bedroom, one into the kitchen and one to the stairway. If all doors were closed it made a little 'dark dungeon.'" October 21, 1992

Write a story about a rainy day when the Martin twins were playing in the "dark dungeon."

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Day Two Good Food

Florence Remembers Good Food: "Most of the food was produced on the farm such as beef, pork and chicken. We always had nice garden (if the weather cooperated). Mother made all our bread. (I never ate Bakers [*sic*] bread until I was an adult.) She made pies and cake. A typical meal was no different than we have today—like meat, potatoes and gravy—a salad and a vegetable (beside [*sic*] potatoes). We had pancakes for breakfast often." February 19, 1993

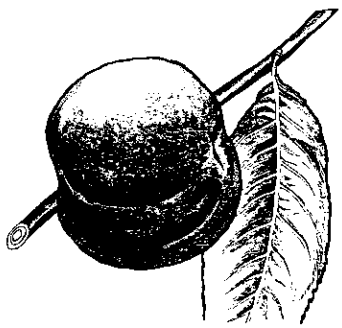
"Cattle and pigs were butchered in the space between the cribs. Pigs were hung from a rafter by a rope and pulley and dipped in a barrel of hot water so we could scrape the pig with knives [to remove the bristles]. I can't remember where or how the water was heated. The chickens had their heads cut off at the wood pile just west of the garage. Then they were dipped in hot water in a bucket. The temperature had to be just right—not too hot or too cold, so the feathers could be pulled off. Then they were 'dressed' [gutted and cleaned] in the kitchen." October 21, 1992

NOTE: "Between the cribs" refers to the center drive-through space in the corn crib east of the house.

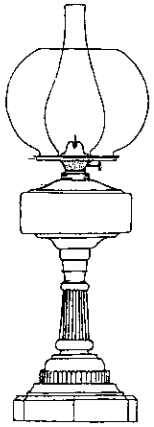
"There was a peach orchard on top of the slope northwest of the cow barn. We added peaches to our supply of fruit for 4 or 5 years and then a windstorm destroyed it. The orchard was in the southeast corner of a wheat field.

"There were 2 brooder houses in the orchard. They were heated with a kerosene lamp with metal chimney (under the brooder house and a space cut out in the floor). A canopy over the lamp . . . .

"This report sounds like a lot of fruit and vegetables were produced. There never was an abundance at any *one* time—unless it was apricots." February 19, 1993



Day Three The Parlor and Food Storage



Florence Remembers the Parlor: "A table about 3 ft. square was in the middle of the room that held a beautiful pink lamp. The lamp burned kerosene and had a round [tubular] wick. It had a clear glass chimney inside the pink top globe. It had a metal base." February 19, 1993

NOTE: The abundance of a cheap fuel, called kerosene or coal oil, was a major change in the history of lighting. For centuries most of the innovations had been very minor. From the mid-1850s through the 1930s, American farmhouses were primarily lit by kerosene lamps. Kerosene provided a "more convenient, brighter and safer form of lighting." Rural electrification during the 1940s and 1950s did not mean kerosene lamps disappeared. They still were (and are) important during power failures and for checking stock at night.

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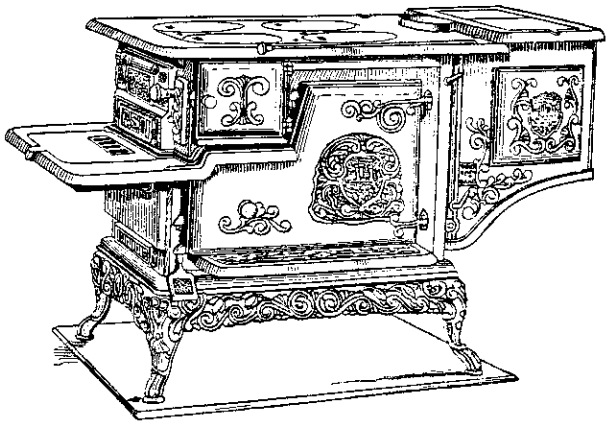
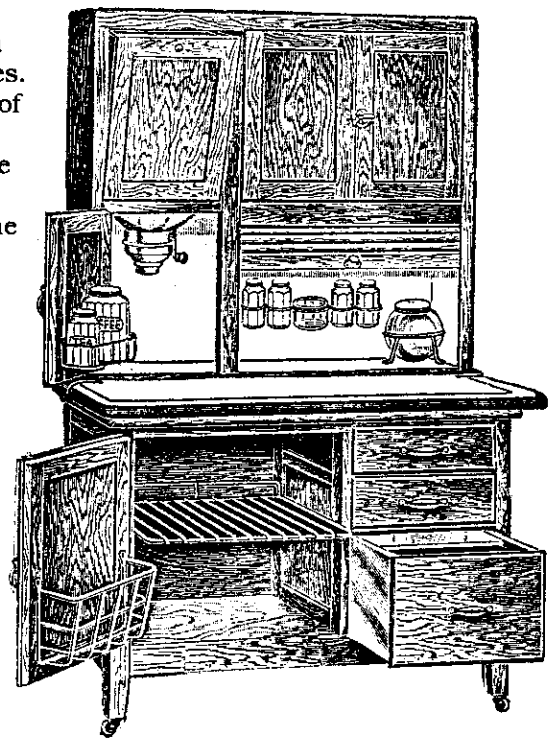
Florence Remembers Food Storage: "We never had an ice box. The cave kept our milk, cream and butter . . . . There was a bin on the west side of the cellar [under the parlor] where we kept potatoes and apples. Not all of the apples were produced on that farm. Dad went to N.E. Kansas in the Fall to get apples. The home made board cupboard held our canned fruit and vegetables. I remember a large stone jar near the center of the cellar that contained sour kraut [*sic*] that Mother maid [*sic*]. There was also a smaller stone jar that held 'fried down' beef steak. It (the meat) was covered with lard to keep it from spoiling. It was delicious. No tables down there."

Describing the kitchen, "Stove in the N.E. corner. Sink in the S.E. corner (Dad built it). Cupboard in the S.W. corner and kitchen cabinet in the N.W. corner. The cabinet had a flour bin, dough board and space in the top for sugar, soda, B.P. [baking powder] and spices. The dining table was south of center and just in front of the south door. A rocking chair was near the north window. A coat rack was on the south wall, east of the south door . . . . A wood and cob box was in the N.E. corner of the kitchen. (The cook stove was out from the wall far enough to allow this.)" February 19, 1993



Wood-burning cooking stove (without stove pipe).



"Hoosier"-style kitchen cabinet.

NOTE: A telephone was on the wall. The sink that Florence remembers was still in place in the southeast corner of the stone cabin in 1992 when the Archeology Team arrived to investigate. A

dry sink is a sink without a companion source of fresh water. Water was hand-carried from the well in buckets. The sink drained usually by a drain pipe down to a trench underground, which sloped away from the building. The sink made easier the preparation of food for meals and preserving, and served as a place to wash dishes and hands. See Day Three in the X-Units section on page 151.

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Day Four Flowers and Porch Life

Florence Remembers Flowers: "On the north side of the kitchen we had a pansy bed (close to the stone wall). Those pansys [*sic*] just got up and said 'how-do-you-do' when they were arranged in a shallow dish with a flower 'frog' in it.

"We also had a water lily pool just south of the pump and cement walk and about 12 ft. from the porch. We had white, yellow and vivid pink lilys [*sic*]. We destroyed the pool when Rose's children were small. A child could have easily drowned. The diameter of the pool—about 6 ft." February 19, 1993

"Mother grew several annual flowers in the yard including zinnia, portulaca, and sky blue moon flower (morning glories) on the fence in front of the east porch (between the lilac bush and the horse watering tank.) I also remember sweet peas on part of that fence. We had a red rose and a white rose south of the house. We had one hybrid tea rose . . . ." January 13, 1996

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Florence Remembers Porch Life: "The foundation of the porch was limestone rocks both on the south and east side. There wasn't a crawl space underneath.

"The porch roof was nearly flat. I remember putting a ladder north of the separator room to get on the porch roof to dry apricots. We first spread a sheet to put the fruit on—then covered them with mosquito netting to keep the flies off.

"The south part of the porch was enclosed as was the east part. There was flyproof screens, but there were plenty of flies got in thru the doors. We put our dining table in the corner of the porch in hot weather. The kitchen was too hot for we used a wood burning stove to cook. We did have a 2-burner kerosene stove with an oven. It was in the separator room." October 21, 1992

"We had a cot on the south part of the porch where Dad took his after dinner nap in the summer time. His nap didn't last but about 20 min.—then he was off to his work.

"We kept a pile of kindling (broken, small, dry limbs) to start a fire in the morning—on the porch." February 19, 1993

How does the Martin porch serve the family in difference seasons? Does a modern house have versatile spaces?

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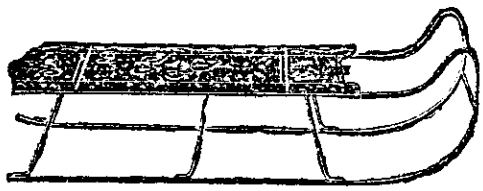
Day Five Review and Present for Guests

Florence Remembers More Fun: "Dad fixed a toboggan slide on the hill in the southeast corner of our farm. He made us a sled with steel runners on it—a long sled that several kids could get on. We also used a scoop shovel for a sled on the hill west of the old limestone house that we used for a chicken house."

Design a toboggan for the Martin twin paper dolls. See Paper Dolls in the Project section on pages 111-114.

Draw a winter scene showing kids using a scoop shovel for a sled.



TIME LINE

This project hopes to help students understand temporal context through the use of time lines that range from one representing 24,000 years to one representing just one day. Blank miniature time lines are provided on page 135.

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Getting Ready Cultural Sequence of Kansas

Use a scale of 1 foot = 2,000 years. The line will be 12 feet long (24,000 years). As a class, complete the time line using the information below.

Period	Date Range
Paleoindian	circa 20,000 to 6000
Archaic	circa 8000 B.C. to
Early	circa A.D. 1 to 1000
Middle	circa A.D. 1000 to
Late Ceramic	circa A.D. 1500 to
Historic	circa A.D. 1541 to

NOTE: Several periods overlap, i.e., Paleoindian/Archaic and Late Ceramic/Historic.

Explain that this unit of study involves the Historic period and is, therefore, historical archeology. When Spanish conquistador Coronado and his exploration party were here in A.D. 1541, they wrote about their experiences. Their written records of the journey mark the beginning of the Historic period in Kansas. Ask students to imagine what will happen in the new "foot" (2,000 years).

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Day One Family Farm

Use a scale of 1 foot = 10 years. The line will be 12 feet long (120 years).

Add Civil War, Homestead and Timber Acts, Kansas Territory, Kansas statehood, World War I and World War II, women's suffrage, a man on the moon, etc. Add the students' birth years. Now add significant dates for the farmstead and the people who lived there.

Event	Date	Notes
Klimas own farm.	1875-1903	
Langs own farm.	1903-1909	
Martins own farm.	1910-1947	
Chizek/Walthers own farm.	1947-1992	
Archeological research is conducted at 14RP322.	1992	
James Klima is born.	1848	in Bohemia
Margaret ___?___ Klima is born.	1850	in Bohemia
Margaret and family immigrate to United States.	1856	Margaret was 6.

James immigrates.	1869	at age 21
James and Margaret marry.	1872	in Iowa
Mary Klima is born.	1874	in Iowa
Klimas homestead in Kansas.	1875	at site 14RP322
Klimas receive claim to the land.	1879	
Bernard ("Barney") Lang is born.	1875	in Kansas
Julia ____?____ Lang is born.	1876	in Kansas
Zemen family is living at Klima farm.	1885	from Bohemia; worked as hired help
Barney and Julia marry.	1899	in Kansas
Lawrence Lang is born.	1902	in Kansas
Barney sells to Martins.	1909	Julia had died.
Fred Martin is born.	1869	in Kansas
Jesse Nichols is born.	1871	in Kansas
Suchomel family is living at Klima farm.	1895	from Bohemia; worked as hired help
Fred and Jesse marry.	1897	in Kansas
Rose is born.	1898	in Washington County, Kansas
Florence and Flossie are born.	1905	in Washington County, Kansas
Rose begins teaching school.	1918	in Kansas
Rose marries Otis Pugh.	1920	at the farmhouse in Republic County, Kansas
Florence and Flossie train as teachers.	1924	in Manhattan, Kansas
Florence and Flossie begin teaching.	1925	at age 19, in Kansas
Florence marries Howard Cundiff.	1937	at the farmhouse in Republic County, Kansas
Flossie marries Severt Olsen.	1945	
Martins sell to Ernest Chizek and retire to Cuba, Kansas.	1947	
Marjorie Chizek Walthers inherits property.	1972	Marjorie is Ernest's daughter.

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Day Two A Busy Summer's Day

Use a scale of 6 inches = 1 hour. The line will be 12 feet long (24 hours).

Fit these tasks performed by the twins into a busy summer's day on the farm in the 1920s:

Help Mother prepare three meals.
Carry and heat water and wash dishes.
Milk cows (morning and evening).
Help Dad in the hay field.
Hoe vegetable garden.
Pick green beans and prepare for canning.
Pump water for livestock (twice a day).

Make another time line for your own busy summer's day and compare it with what the Martin girls were doing.

Day Three Building History

Use a scale of 1 foot = 10 years. The line will be 12 feet long (120 years).

Mark the construction, alterations, and destruction of the farmstead buildings. Ask students to define the word "raze." Emphasize other forces that can destroy a structure. Remind students of the many thousands of years before this building sequence at this particular place. SAVE THIS TIME LINE FOR POSSIBLE USE ON DAY FOUR.

Date	Event
1875	West stone cabin built. Cow barn (wooden) built. Shed (wooden) built.
1885	East stone cabin (core of farmhouse) built. Horse barn (two-story, wooden bank barn with stone basement) built. Root cellar (limestone) built. Smokehouse built. (Limestone vault is only evidence remaining.) Corn crib (wooden) built. Pig shed (wooden) and pen built.
1903	Smokehouse structure moved a bit east onto cement pad. Addition (two-story, wooden) added on west side of east (1885) stone cabin. Porch (wrap-around, screened) added on south and east sides of 1885 stone cabin. Cellar (limestone) dug below two-story addition. 30-foot well reported. Walk (cement) constructed from porch east to pump on a cement pad and beyond to east yard gate.
possibly 1903	Granary (wooden) attached to corn crib.
1910	Cream separator room (wooden) enclosed north end of porch.
1919	New privy pit dug.
1920	New floor added over old one in farmhouse kitchen.
about 1920	Garage (wooden) built.
1939	Pig shed and pen razed when Highway 39 was constructed.
sometime after 1946	Cow barn razed.
late 1950s	Wooden addition and porch on house razed.
1992	East (1885) cabin destroyed due to Highway 39 improvements.

Day Four The Growing Season

Use a scale of 1 foot = 1 month. The line will be 12 feet long (12 months). (This could be a circle rather than a line.)

Note planting, cultivation, and harvest times for the crops and some of the food that the Martin family raised in 1925. The suggestions that follow do not represent a comprehensive list of garden produce nor all the work necessary for crops, such as fertilizing and ground preparation.

Time of year	Crop	Activity
February/March	oats garden peas "cole" crops, such as cabbage	Plant. (Farmers say "sow oats.") Disk and fertilize with livestock manure. (Manure also used to fertilize fields.) Plant. Start seed indoors.
early March	potatoes	Plant (by March 17, according to folk wisdom).
mid-March	cabbage, etc.	Set out seedlings.
April	corn (field) corn (sweet) green beans other garden vegetables flowers	Plant (usually second week of April. Kansas farmers say, "when the hedge leaves are as big as a squirrel's ears.") Plant. Plant. Plant. Plant zinnias, marigolds, etc.
May through September	alfalfa	Cut three or four times, depending on weather and age of field.
June	oats wheat (winter) potatoes peas lettuce, radishes, etc. cabbage, onions green beans flowers all garden crops	Harvest (through first week of July). Harvest. Dig some to eat. (At this stage they are called "new" potatoes.) Pick some to eat (with new potatoes) and preserve the rest. Harvest to eat fresh. Harvest to eat and preserve. (Cabbage makes kraut.) Harvest first that "set on" to eat fresh. Weed and nurture with a little extra water. Hoe and pull weeds.
June/early July	corn (field)	Cultivate to loosen soil as well as kill weeds between rows. (Farmers say, "lay the corn by.")
When you can . . .	roses	Stop and smell them!
July	corn (sweet) green beans prairie hay all garden crops	Harvest to eat and preserve. Harvest to eat and preserve. Harvest. (Season yields one cutting.) Hoe and pull weeds some more!
late July/early August	apricots	Pick to eat and preserve.
August	potatoes carrots, etc. onions green beans fall vegetables	Harvest and store in cellar. Harvest to eat and preserve. Harvest and store in cellar. Harvest to eat and preserve. Plant in July/August if fall garden is desired.
September	corn (field) wheat (winter)	Harvest (by hand usually through November or December). Plant. (Farmers say "drill" now, but the Martins probably "sowed" with a planter.)

Apricots, apples, pears, peaches, blackberries, gooseberries, strawberries—fruits were essential elements of the diet and took a lot of work to preserve. Find out when some of those mentioned here would need care, when they were ripe, etc.
NOTE: Corn and squashes and pumpkins are part of an ancient tradition of growing certain crops together. Planting pumpkins by at least the 4th of July while cultivating the corn is a bit of folk wisdom: Lay the corn by
by the Fourth of July.
When the corn's in the bin,
the pumpkins are in.

OPTION: Use Day Three time line. Add some of the significant notations from the previous time lines, such as the families' arrivals and tenures.

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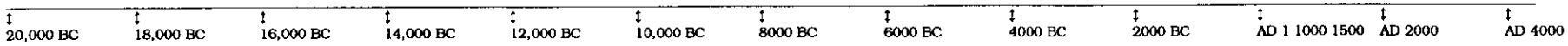
Day Five Just Last Year

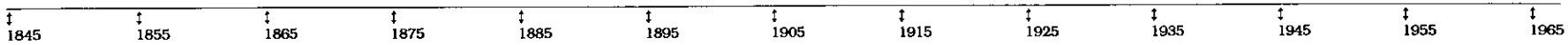
Use a scale of 1 foot = 1 month. The line will be 12 feet long (12 months).
Students can make a time line of their past year. Include school, holidays, vacations, birthday, sports, and other important events, such as the county fair or church activities. Compare a time line and a diary as ways of viewing time.

ENLARGE THESE TIME LINES BY ABOUT 135 PERCENT TO OBTAIN THE FULL 12-INCH LENGTH.

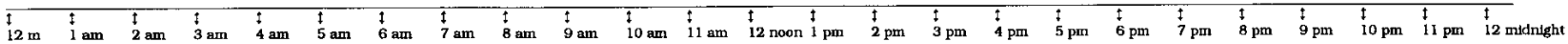
Getting Ready: 1 inch= 2,000 years. 12-inch line = 24,000 years.



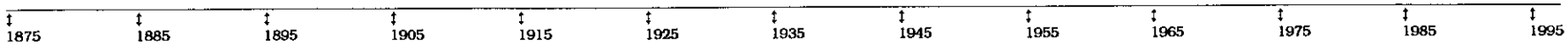
Day One: 1 inch = 10 years. 12-inch line = 120 years.



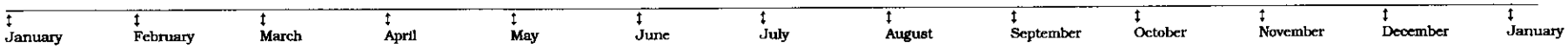
Day Two: 1 inch = 2 hours. 12-inch line = 24 hours.



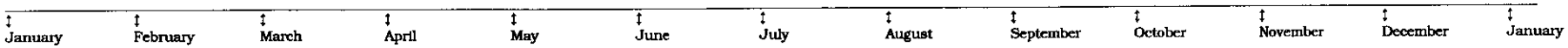
Day Three: 1 inch = 10 years. 12-inch line = 120 years.



Day Four: 1 inch = 1 month. 12-inch line = 12 months. OPTION: Same as Day Three.



Day Five: 1 inch = 1 month. 12-inch line = 12 months.



FARM RECORDS

The data for this project comes mainly from the state agricultural schedule, which is an addendum to each of the census reports for 1875 through 1925. This section is ideal for graphing, charting, and practicing a range of math skills. You may want to use the blank chart on page 139, so students can enter data themselves. Day-by-day suggestions focus on one family at a time.

NOTE: Help students understand that these production records represent survival for the family plus cash for land payments, seed and equipment, construction and repair of buildings, new shoes for growing children, furniture, etc. Name other items and services needed but unavailable from the farm.

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Day One The Klima Years

The Klimas, like thousands of others, claimed land under the Homestead Act and began with meager means. Their years of work changed the property considerably. Compare the land's value for each of the census years. Fencing and other entries reveal some of the reasons. Note when the total acreage increases to 220 acres, due to the Timber Act. Discuss the qualifications and requirements established by the acts of Congress that made the opportunity available and why these steps would be taken by the government. Also discuss what this meant for the many native groups living here. Ask students to speculate about the relationships between livestock, crops, equipment, and the farm's buildings. Use the data in the Time Lines section to help students understand the temporal context of these farm records.

SAMPLE QUESTIONS: How could the Klimas break ground without horses? Possibly they used oxen, listed in the records as part of "other cattle." What other kinds of cattle might be represented in the "other cattle" category? What can records tell you without using numbers? Example: In 1875 there are one producing milk cow and three "other cattle." Butter is being produced too. That means the milk cow has had a calf (since a cow only produces milk when she has had a calf) and that one of the "other" category is probably her calf. Another example: No chickens or income from poultry products are listed for 1875 and 1885. Then the record shows an entry in 1895. Is this because the Klimas had no chickens earlier? Records show that the Zemens, a family of five, came from Bohemia to the Klima property, where they lived in the west (1875) stone cabin and worked for the Klimas. The Zemen family's help meant more acres under cultivation. The Zemens were paid $75 in wages in 1885. No other wages were recorded. What besides cash did they receive in exchange for their field, garden, and house work? The Suchomel family took the place of the Zemens sometime between 1885 and 1895.

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Day Two The Lang Years

The Langs, first generation pioneer children, made a big difference in their nine years on the property too. In addition to the changes to the farmhouse, the records indicate a 30-foot well during the Lang years. Was it there but unreported during the Klima years? We don't know. Help students understand that it is possible to misinterpret the written record, just as it is to misinterpret the archeological record. Historical archeology uses records, archeology, and informants to help reduce the mistakes and bring the past into clearer focus. This is a multiple line of inquiry. Record keepers sometimes make errors too. For example, the two entries for "corn" in the official records for 1905 could indicate a clerical error, or there may have been two kinds of corn grown (kaffir corn, popcorn, broomcorn, etc.)

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Day Three The Martin Years

The Martins bought a farm that had been in production for 35 years, so the "sod-bustin'," original construction, fencing, and orchard planting had already been done. How do the farm records reflect that this is an established farm (alfalfa field, for example)? What is "tame" hay? Why in Kansas, the "Wheat State," were so few acres devoted to wheat (Langs and Klimas

included)? Martin took his wheat to trade for flour at a local mill. Jesse made all the family's bread, pies, cakes, etc. A typical recipe for two large loaves of bread takes about eight cups of flour. How much flour would the Martins have required for bread alone in 1915 (when all three girls were still at home)? What is the difference between winter and spring wheat? How do the plantings, harvests, and products differ?

Jesse stuffed the bed mattresses and pillows with feathers from her chickens. This by-product of poultry raising does not appear on the records. Think of other products/benefits that are not reflected in the official record (how about manure for fertilizer, for example?).

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Day Four For Fun

For fun, figure how many eggs it would take to feed the Klimas and the Zemens for one day in 1885. The Klimas (2 adults plus 11-year-old Mary) and the Zemens (2 adults plus 3 sons, ages 9, 6, and 2 years) would eat eggs and cakes, pies, noodles, custards, etc. that required eggs too. Remember that the typical cake receipt (recipe) might call for 3 or 4 eggs and that an angel food cake requires 10 to 12 egg whites!

Weather played a significant role in egg production. "Laying season" (spring and early to mid-summer) was a time of abundance, while the heat of high summer and the cold of winter reduced production significantly. Today's genetics, "warehouse" accommodations, and artificial lighting and temperature controls make egg and poultry production corporate businesses now. Industrialized and more productive today, the new approaches require some consideration from an ethical perspective. Where does the family farm fit into this kind of "modern agricultural business?" Is this kind of farming ethical? Is it even "farming?" What would happen to poultry and egg prices if the industry became once again the province of family farms? Is a balance possible? Currently the same kind of issues are coming up in the state legislature for corporate hog farming. What are our responsibilities to the environment? How do traditional hog farmers compete? Make sure students understand that agriculture today changes quickly and often dramatically. What are some turning points that altered farming in the early twentieth century?

What kinds of evidence for any other categories in the farm records would be found archeologically? Even though they did not excavate the whole Martin farmstead, only selected spots, archeologists expected to find many more artifacts that related to the horses that powered so much of the farm work. Here's all they found: a harness buckle, a halter snap, a D-ring, and four horseshoe nails.

Talk about potatoes! Where would the Klimas have stored all those potatoes? The Langs? The Martins? What important vitamins do potatoes provide? How many ways can potatoes be prepared? Florence reported potatoes for breakfast. Check McDonald's or other fast food menus for breakfast potatoes. What is an Irish potato? People use the term "Irish" to differentiate starch potatoes from sweet potatoes. Check the supermarket for other kinds. Why are more types grown in home gardens than usually appear in the produce department? Consider shelf-life, shipping durability, starch and sugar contents, appearance, and cultural preferences.

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Day Five Farm Dogs

Consider that a farm dog is indicated in all but one report. How does a farm dog earn its keep? Think of a good name for a Klima, Lang, and Martin dog. Remembering that the Klimas' heritage was Bohemian, Barney Lang's was Luxembourgian, and Fred Martin's was French Canadian may suggest some names.

Surplus crops could be sold for cash. This market system connected the farm's products with the local economy. What town buildings represent agricultural surplus, just as farm storage space in bins, barns, and silos do? Talk about the interdependence of rural and town businesses. What is "agribusiness?" How many parents' jobs relate directly or indirectly to agriculture?

A supplement to the 1993 Bureau of the Census on pages 140-141 provides some insight into changes in American housing in the last 20 years.
NOTE: This is NOT the same census as the once-a-decade Population and Housing Census.

1925	1915	1905	1895	1885	1875	Year
Martin	Martin	Lang	Klima	Klima	Klima	Family
25	25	20	3			Acres Alfalfa
			5			Acres Timothy
4		4		7 tons		Acres Prairie Hay
			½			Acres Bluegrass
20	15	65	90	50	0	Acres Corn
20	16	24	7		4	Acres Winter Wheat
				4		Acres Summer Wheat
			3		3½	Acres Rye
12	10		30		½	Acres Oats
		20				Acres "Corn"
			5 (3 seed/2 sugar)		¼	Acres Sorghum (Seed/Sugar)
				10		Acres Buckwheat
			6			Acres Millet
1	¼	½	⅛	½	¼	Acres Irish Potatoes
2	5	5	9	6	1	Nos. Milk Cows
9	10	8	11	7	3	Nos. "Other" Cattle
4	4	3	3	4		Nos. Horses
5 (breed sows)	4	40	13	40	3	Nos. Hogs
200 (hens) + $200 (meat & eggs)	100 (chickens) + $150 (meat & eggs)	$75 (meat & eggs)	$70 (meat & eggs)			Nos. Chickens
1		1	1	1	1	Nos. Dogs
	800 (on 160 acres)		1000 (enclosed property)	30 (stone), 30 (wire), 10 (board)	0	Nos. Rods Fenced
100 + $150 (milk & cream)	100 + $200 (milk & cream)	200	600	300	50	Pounds of Butter
$300	$400	$200	$500	$600		Slaughter Income
	7 swine & 1 milk cow	7 swine & 4 "other" cattle				Loss Due to Disease
not available	not available	$75	$50	$50	not available	Implement Value
	bought for $8000 in 1910	$5000 ($900 worth buildings)	$3000	$1800	$200	Farm Value
			8	4		Trees Bearing Fruit
				$75 to Zemen		Wages Paid

1925	1915	1905	1895	1885	1875	Year
Martin	Martin	Lang	Klima	Klima	Klima	Family
						Acres Alfalfa
						Acres Timothy
						Acres Prairie Hay
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						Acres Corn
						Acres Winter Wheat
						Acres Summer Wheat
						Acres Rye
						Acres Oats
						Acres "Corn"
						Acres Sorghum (Seed/Sugar)
						Acres Buckwheat
						Acres Millet
						Acres Irish Potatoes
						Nos. Milk Cows
						Nos. "Other" Cattle
						Nos. Horses
						Nos. Hogs
						Nos. Chickens
						Nos. Dogs
						Nos. Rods Fenced
						Pounds of Butter
						Slaughter Income
						Loss Due to Disease
						Implement Value
						Farm Value
						Trees Bearing Fruit
						Wages Paid

Bureau of the Census **Statistical Brief**

Home Sweet Home —

America's Housing, 1973 to 1993

Between 1973 and 1993, the Nation added 31 million homes.

The national housing inventory reached 107 million units in 1993. Over the course of the past two decades, housing growth has been concentrated in the South and West. Nearly 7 of every 10 homes constructed since 1975 were located in these two regions. Twenty years ago, 32 and 18 percent, respectively, of the homes in the United States were located in the South and West. By 1993, these respective regional shares had grown to 36 and 21 percent.

The condition of our housing improved.

Between 1973 and 1993, U.S. households became more likely to have —

- Complete kitchens.
- Complete plumbing facilities.
- Central heat.
- Central air conditioning.

- Adequate elbow room. As occupied housing units grew larger (from a median of 5.1 to 5.5 rooms), the typical household became smaller (dropping from 2.5 to 2.3 persons). Consequently, the proportion of homes that were crowded (more than one person per room) was cut in half, from 6 to 3 percent.

At the same time, they became less likely to have interior problems, such as —

- Peeling paint
- Open cracks.

The graph below illustrates these improvements.

Homes grew older.

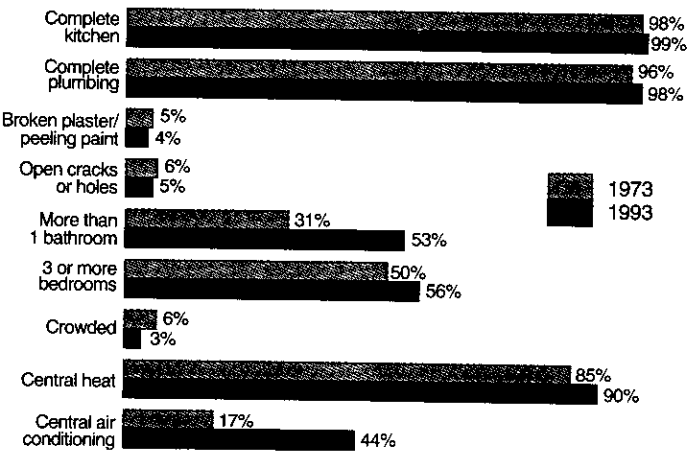
In 1973, American homes were a median of 22 years old; 20 years later, the typical home was 28 years of age.

More and more homes were heated by electricity.

In 1973, piped gas was the main heating fuel for the majority (55 percent) of the Nation's occupied homes. Fuel oil and electricity, at 25 and 10 percent, respectively, followed. Twenty years later, piped gas was still tops (51 percent), but electricity and fuel oil had traded places (27 and 12 percent, respectively). Electricity's jump may be

In Most Respects, the Quality of Our Homes Improved

Percent of occupied housing units with selected characteristics: 1973 and 1993



Note: A home has complete kitchen facilities if it contains a sink with piped water, a range or cookstove, and a refrigerator; it has complete plumbing facilities if it has hot and cold piped water, a flush toilet, and a bathtub or shower. Crowded means more than one person per room.

SB/95-18
Issued July 1995

U.S. Department of Commerce
Economics and Statistics Administration
BUREAU OF THE CENSUS

Our Homes Are Still Our Castles!

On a scale of 1 to 10 (10 being the best), 82 percent of owners and 60 percent of renters in 1993 rated their home at least an 8. Using the same scale, 77 percent of owners and 59 percent of renters gave their neighborhood a comparable rating.

due to the increasing popularity of the heat pump. In 1993, 9 percent of all households — and 21 percent of occupied homes constructed since 1989 — used them. In 1973, by comparison, heat pumps were so rare that we didn't even ask respondents whether they had one!

Homeownership rate remained practically unchanged.

About 65 percent of homes in 1973 and 1993 were occupied by their owners. As in 1973, homeownership rates were higher in the Midwest and South than in the Northeast and West.

Housing became less affordable.

In constant 1993 dollars, the median income of families and primary individuals who owned their homes slipped 2 percent from 1973 to 1993 — from $37,400 to $36,500. Renters suffered an even greater erosion in median income — $23,400 to $18,900, or a 19-percent drop.

While incomes were declining, home values and rents were rising. The median value of owner-occupied homes (in constant 1993 dollars) rose 10 percent — from $78,400 to $86,500. Likewise, the median monthly amount paid in rent and utilities rose 12 percent, to $487.

Households became less likely to be maintained by married couples ...

In 1973, about 75 percent of all owner-occupied housing units were maintained by married couples; the same was true for 48 percent of all renter-occupied units. Twenty years later, the corresponding proportions had declined to 65 percent and 30 percent, respectively. At the same time, multi-person households maintained by single women became more common (a 1-in-8 chance in 1973, 1 in 5 in 1993).

.... or contain children ....

In 1973, 43 percent of householders lived with their own children under age 18. Two decades later, the proportion had dipped to 37 percent.

.... but more apt to be maintained by elderly persons.

Elderly persons maintained 19 percent of the Nation's households in 1973, and 22 percent in 1993.

More information:

American Housing Survey for the United States in 1993. Current Housing Reports. Series H150/93. Contact Customer Services (301-457-4100) for ordering information.

Contacts:

Housing changes — Jeanne Woodward 301-763-8553

Statistical Briefs — Robert Bernstein 301-457-2794

This Brief is one of a series that presents information of current policy interest. It may include data from businesses, households, or other sources. All statistics are subject to sampling variability, as well as survey design flaws, respondent classification errors, and data processing mistakes. The Census Bureau has taken steps to minimize errors, and analytical statements have been tested and meet statistical standards. However, because of methodological differences, use caution when comparing these data with data from other sources.

We're Crazy About Our Comforts

There are a lot of amenities that a homeowner doesn't absolutely need, but would probably agree they're nice to have. Fortunately, in 1993, many owners *did* have conveniences such as dishwashers (61 percent), usable fireplaces (42 percent), separate dining rooms (55 percent), multiple living/ recreation rooms (45 percent) and garages or carports (74 percent).
These amenities were even more prevalent in "new" homes — those built during the 4 years prior to the 1993 American Housing Survey. More than 8 in 10 owners in such homes (82 percent) had dishwashers, while 55 percent had usable fireplaces, 59 percent separate dining rooms, and 50 percent multiple living/ recreation rooms.

Happy 20th, AHS!

Housing is often our biggest expense. And it's an important reflection of how we see ourselves. For these and many other reasons, analysts in business, government, and academia study the Nation's housing very closely. But until 1973, Census Bureau data on the U.S. housing inventory was rather sporadic, coming only from the once-a-decade Census of Population and Housing (which includes relatively few housing questions), periodic one-time sample surveys, and a survey of vacant housing units.

Enter the source of the data in this Brief — the *American Housing Survey (AHS).* First conducted in 1973, it now takes place nationally every other year. Thus the 1993 AHS, the latest from which data are available, marked the survey's 20th anniversary. Conducted by the Census Bureau and sponsored by the Department of Housing and Urban Development, the AHS is the most up-to-date, comprehensive source of information on our Nation's housing. Planners, policymakers, scholars, and other researchers have come to rely heavily on it.

THE FARM FAMILIES

Getting Ready

THE FAMILIES

Time has done much to hide the past. At a prehistoric site where people once lived, much now lies hidden. Often the site is below the surface of the soil with little left of the houses but charred remains. Through the centuries weather, fire, and the earth's chemicals have destroyed many of the details. And no one is still alive who remembers the exact place and time.

A historical site, though, lets us get to know a place more intimately. Archeologists can compare written history (documents, letters, census reports, maps, photographs, and recollections) with the site itself to learn more. Instead of general trends and long time spans, scientists can be more precise. They can examine surviving structures and artifacts to test ideas as new facts emerge. They can even come to know about individual people who once lived at the site.

At the Martin farmstead in Republic County, a team of archeologists investigated a Kansas farm that operated from 1875 to 1947. In the process they came to know the place well—the land and the buildings and the people.

Three families called this farmstead home. First came the Klima family: Margaret and James and their baby, Mary. Immigrants from Bohemia, the Klimas settled the land in 1875 under the provisions of the Homestead Act. Their 28 years of work here established the fields and fences, planted the orchards, and built the stone cabins, barns, and most of the other structures that served as shelter, storage, and workshops.

Next came the Lang family: Julia and Bernard and their baby, Lawrence. Originally from a neighborhood close by, the Langs farmed here from 1903 to 1909. During their stay the stone farmhouse grew larger with a two-story frame addition and a wrap-around screened porch.

In 1910 the Martin family arrived: Jesse and Fred and their daughters, Rose, Florence, and Flossie. Jesse and Fred sold their farm in neighboring Washington County to buy the 160 acres. They spent the next 36 years here, and although the world around them changed a lot during that time, much stayed the same on the Martin farm. Fred still harnessed his team of horses to work the land. Jesse still sowed vegetables each spring and preserved her garden's bounty for winter use. Roosters still crowed to announce each new day, and kerosene lamps still lit the night.

When the Martins retired in 1947, the new owner, Ernest Chizek, and his heirs, used the land to pasture cattle. Before a highway project destroyed most of the remaining farm buildings, archeologists studied the farmstead to help preserve its story.

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Day One The Klimas

When Margaret and James Klima met in Iowa, they already had some important things in common. Both were born in Bohemia, and both were now Americans. The foods, language, and customs of one were familiar to the other. However, Margaret had been in the United States since she was 6 years old, while James had not arrived until he was 21. We do not have any details of Margaret's American childhood, but we can guess that her years here gave her a different set of experiences than those of her new husband.

After their daughter's birth, the young couple settled in Republic County, Kansas, where they farmed in Richland Township for the next 28 years. County records show the Klima name on property in the northeastern corner of the township, surrounded by others with similar backgrounds. Family names reveal that about half of the township's settlers shared the Klimas' central European heritage: Kalivoda, Benneshek, Breholtz, Sholda, Sedlachek, Chizeck, Gasparak, and others had their individual hopes and dreams just as the Klimas did. In common with their neighbors, they brought a cultural heritage to the new state that was rooted in the Old World.

How would Margaret and James' experiences be the same? Different? Why would so many people of Bohemian descent settle in the same area? What advantages and disadvantages would

this offer? The other half of the township's settlers had names like Oliver, McClacken, Baker, and Brownlee. Try to guess what their heritages were. How would settling in a new place be different for a family already in America for four or five generations? How would the two groups interact? Find out Bohemia's location and some of its culture.

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Day Two The Langs

The Langs were members of the first generation of people born to American settlers in Kansas. Julia's heritage is not known, although we do know she was born in Kansas. Bernard (always called Barney) was one of eight children born to Ann and Joseph Lang, who were natives of Luxembourg. Barney's big sister Anna was born there, before the Langs immigrated to America. Like so many Kansas pioneer families, the Langs tried first one place (Ohio) and then another. Barney was born somewhere in Kansas in 1875, and by about 1880 the family had settled in Richland Township. When Barney and Julia married, they established a home near his parents, where their son was born. They bought 160 of the Klimas' 220 acres. By 1909 Julia had died, and Barney sold the farm to the Martins and returned with his young son to his parents' farm.

How would the Langs' experience as "native born Kansans" have been different from the Klimas'? What language(s) had they learned as children? Think about the differences between moving a few miles from home and immigrating from another country. Many American Indian generations already had experienced this place as "home." Consider how the new settlers destroyed the earlier inhabitants' sense of belonging in this place. Find Luxembourg on a map or globe and learn some of its culture.

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Day Three The Martins

The Martins were born in Kansas, and we know a lot about their heritage. Jesse was one of two sisters in a family of nine children. Their father, George Nichols, was born in Pennsylvania, and their mother, Mary Elizabeth Hillman Nichols, was born in Indiana. They owned a farm about four miles east of the Martin farmstead in Washington County when Jesse was born, and that's where Jesse's daughter remembers their grandparents had always lived.

Fred's parents lived in Illinois before the move to Kansas. Henry and Adelyn Martin were French Canadian. Fred could not speak English when he started school near Cuba. Fred's mother died when he was quite young. When their father remarried, Fred and his two sisters were passed around, living with extended family in the neighborhood. This sometimes happened if the new wife did not want to rear stepchildren. When Fred married Jesse, she had been a school teacher. That occupation was deemed acceptable for a young single woman. (The Martins' three daughters also became school teachers.) Fred and Jesse and the girls usually ate Sunday dinner with Jesse's parents and the rest of the Nichols family at the Washington County farm. Florence remembers that her father was not close to his own family.

Fred's plight when he started school was one shared by many children. How would it feel to learn English as you tried to learn your school lessons? Language can be a bridge or a barrier. It was thought to be a unifier, too.

Fred and Jesse Martin in about 1920.

What other barriers did Fred have to face? How did this change him? A place to call home is more than just a house. Discuss security, a culture's expectations/norms, and how extended family participation in childrearing may be beneficial in one culture and detrimental in another.

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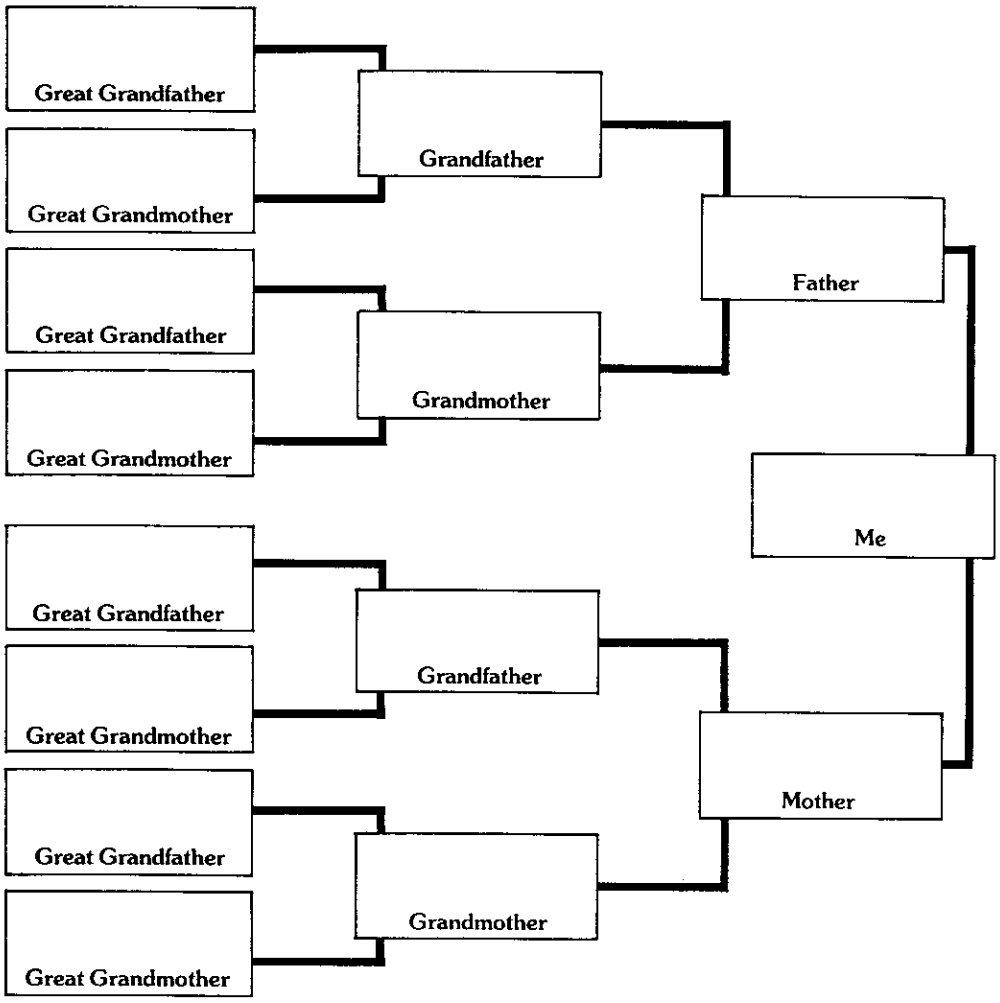
Day Four Immigrants/Emigrants

Use some discussion time to address emigration/immigration. Identify the families as one or the other. Talk about today's immigration policies compared with those in the last half of the nineteenth century and early twentieth century. Railroads promoted Kansas settlement in European countries, advertising free or cheap land and a train ticket to get there. How do people integrate into a new place? What are the community institutions and issues that unify newcomers? Name some ways people retain their cultural identity in a new land. What generational differences might there be between immigrants and their children and grandchildren? A community hall at Cuba once served as a gathering place for the Bohemian-American settlers of the township.

✦ ✦

Day Five Your Own Family

Spend some time talking with students about their own cultural heritages and how their families came to live in Kansas. Do they have family events, foods, or other reminders of their heritages? Students can ask older relatives to help them fill in names, birth dates, and marriage dates on this simple genealogy chart or "family tree."



FARM TALK

Subtleties of language are often missed in research. Even in English, a world of terms can be missed or misinterpreted. Each day's Farm Talk considers some aspect of the language that the Martin family understood. Emphasize that to understand people, their places, belongings, work, and values, we must pay attention to the "invisible" as well as to the buildings and objects we find. Here's one example: Fred Martin's parents were French Canadians who came to Kansas from Illinois. Fred could not speak English when he started school. James Klima had come from Bohemia at age 21, and his wife Margaret had immigrated with her family at age 6. Barney Lang's parents were from Luxembourg. Consider the subtle and not so subtle differences in the experiences, languages, customs, farming terminology, etc. among communities of people who were farming here.

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Day One Market and Weather Reports

Listen to the market report and weather report on a farm information radio station. These reports are given throughout the day, beginning very early in the morning, but always at noon. List some of the unfamiliar terms and find out what they mean. Call the farm market manager of the radio station if necessary. Ask students to choose a crop and follow its price for the week. Develop an "ear" for farm talk. Why do stations report extensively on the market and weather early in the morning and at noon?

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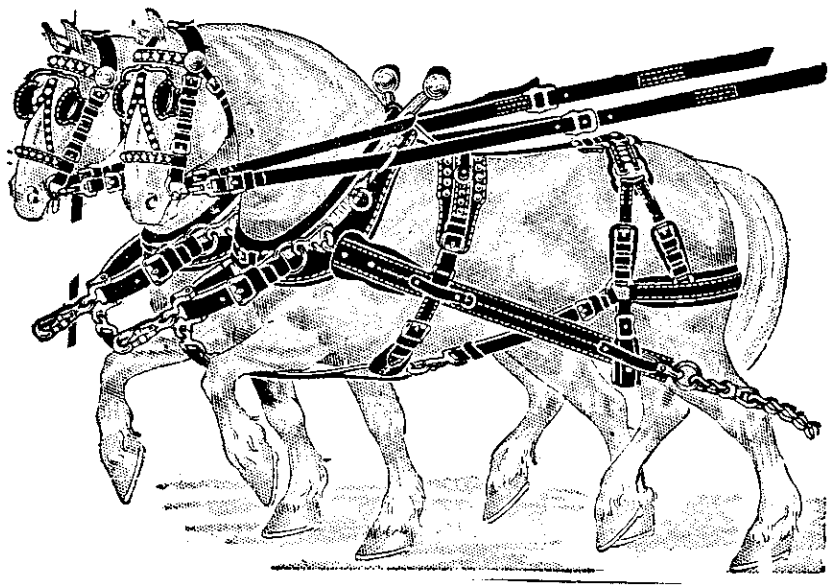
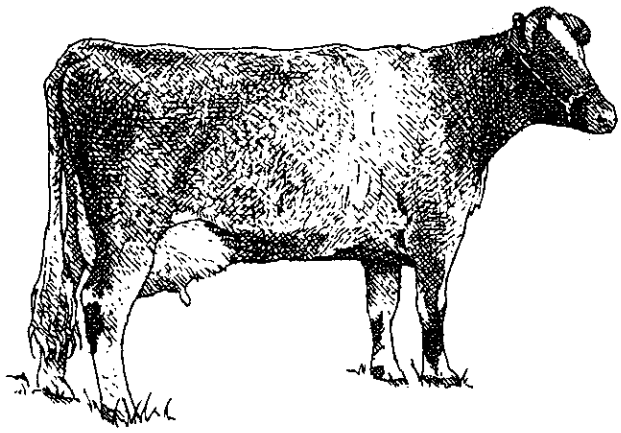
Day Two Farm Animals

Farmers distinguish age, gender, breed, and other specifics about their livestock in terms that may be unfamiliar to many students. Define the following words and discuss the specialist language as a way of learning more about people. (Use terms unique or with an unusual meaning from specific types of work, such as mechanics or nurses, as examples.) Also point out that many animals were acknowledged as individual creatures and were given their own personal names. Fred Martin's draft mares, Nance and Nellie, were an essential part of the farm's operation. A farmer might have the same team of draft horses for 15 or 20 years. A good milk cow or brood sow meant food and money for the family. Students could suggest a name for each of the animals shown here.

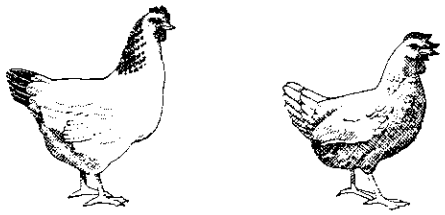
horses
- mare
- stallion
- filly
- gelding
- weanling
- foal
- colt
- Percheron



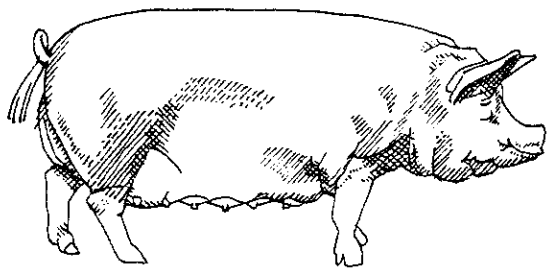
cattle	cow	ox
	bull	calf
	heifer	yearling
	steer	Brown Swiss



chickens	hen	capon
	rooster	chick
	pullet	Leghorn
	fryer	



pigs	sow	shoat
	boar	piglet
	gilt	Duroc
	barrow	



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Day Three Dinner or Supper?

Dinner or supper? What time would Mrs. Martin have expected you if she had invited you for dinner? Many rural people still call the noon meal "dinner" and the evening meal "supper." Florence calls the root cellar north of the house the "cave" and refers to the storage space under the parlor as the "cellar." Many a Kansan ran for the "cave" ahead of a storm or tornado or played on the slanted door that covered the steps leading down to the cool, dark storage space.

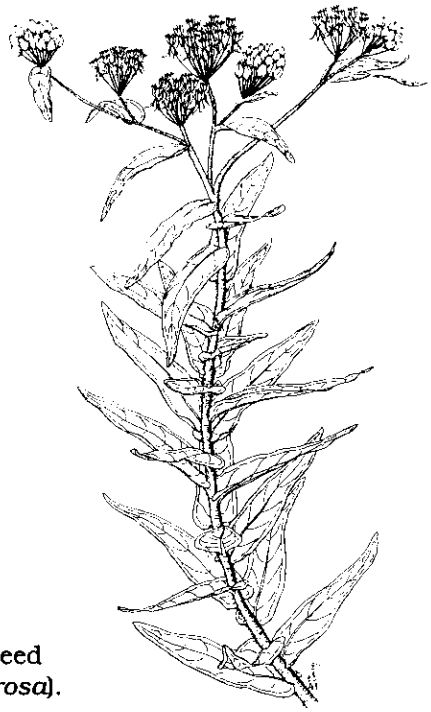
Florence remembers that she never tasted "baker's bread" until she was grown up. Today we call bread from the grocery or bakery "bread" and instead mark as unusual "homemade bread." Florence talks about the folded linens (sheets, pillowcases, tablecloths) as "flats." Where would that term come from? A neighbor remembered Jesse Martin as a real "rustler." What would that term mean? Hint: She didn't steal cattle or anything else. Talk about how language changes and how important it is for the Archeology Team to know many details so they don't misinterpret language or objects or any other aspect of a site investigation.

"Poultice" is another word that has fallen out of common use but continues in the medical field. Much "doctoring" was done at home or in the barn, sometimes with the same remedy or technique for humans and livestock. "Poultice" and "liniment" are two farming terms. A hot poultice could draw soreness from an injured horse's leg. Home doctoring included this old standby for pulling a splinter or thorn to the surface: One piece of bread soaked in milk applied directly to the wound and held in place with a strip of clean cloth overnight. In the morning it was easy to remove the splinter.

Day Four Frog and "Frog"

When is a "frog" not a frog?	When it's a glass or metal device for holding flowers in an arrangement.
Ever heard of a "fresh" cow?	She has had her calf and will now give milk.
"In the milk" sounds like a dairy term.	It's the proper stage of ripeness in sweet corn.
"Dough stage" sounds like a bread making term.	It's a stage of ripeness in wheat.
What is "raw" milk?	It is unpasteurized, unhomogenized whole milk.
What's a "chicken walk?"	A wide board with lath nailed to it makes a sort of solid ladder, which allows chickens to climb to the chicken house roost.

Regional pronunciations can confuse research. Many rural Kansans pronounce "creek" as though it were spelled "crick." Local plant names can cause confusion. For example, many Kansans call butterfly weed by its folk name, "chigger weed." What color is chigger weed?



Butterfly milkweed (*Asclepias tuberosa*).

The specialized vocabulary of farmers can be even more confusing with the change in meaning that happens over time. Our own language is changing rapidly, which many experts feel is a sign of good health for English. "Glitch" and "morph" and a new use of "not" (as in "I'm going—not" to indicate negative) are examples. Students can come up with many more.

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Day Five Review, Spell, and Define

Compare vernacular language and vernacular architecture. Review terms. Spell and define. Hold a spelling bee. Until a few decades ago, the proper spelling procedure was as follows: pronounce the word, spell it, and pronounce it again. Sometimes the speller even had to break the word into syllables, spell each, pronounce each, add it to previous syllables, pronounce that word fragment, etc. until the word was spelled. Try it just once with a word like "incompatibility" to gain an appreciation for memory work!

AN ARCHEOLOGIST SAYS

This section is provided to promote a better understanding of what "historical archeology" is and why it is significant.

Proposed changes for Highway 39 meant the destruction of most of the buildings and evidence at the Martin farmstead in Republic County. Special Projects Archeologist Christopher Schoen (pronounced "shane") of the Kansas State Historical Society led the archeological investigation, which was funded by the Kansas Department of Transportation. Excavation work was conducted at the site in 1992.

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Getting Ready Archeology Team

A vast storehouse of history lies beneath our feet, within old walls, before our time. Patterns in the soil reveal the mysteries of people who came before us. Old foundations show us farmsteads when they were young. A broken tool, a forgotten toy, a lost needle, a bit of trash—all become treasures that can teach us about the way life used to be.

Archeologists are scientists who work as a team to investigate the past. They search for meaning in the way each clue relates to others. They patch together an idea, using artifacts as big as a house or as tiny as a seed. They read a people's story from the charcoal of a long-dead fire or the shadows of a circle of stone.

When the **Archeology Team** arrives to study an old Kansas farmstead, they may find purple iris blooming beside the rubble of a stone foundation. An old barn sags and slumps, its roof collapsing and its walls tattered. Vines cling to the gray boards in an embrace, inviting the building to sink earthward. Nearby the shingles of a shed roof chatter in the wind. An outhouse leans crazily, shifted on its small foundation. Beyond stands a house whose windows bristle with bales of hay. A fence around the yard keeps out cattle, who long to walk up the broken steps for a bite to eat, as invited neighbors must once have done. Now no guests call to share the news. No children swing in the shade of the fine old tree in the yard. There is no longer a clatter of buckets at milking time nor the jingle of harness as a tired team of horses heads for the barn. No chickens peck and scratch in the barnyard, feathers flashing brightly. Overhead a pair of swallows flit by, each with a beak full of wet earth.

The **Archeology Team** watches the birds, who are making a nest of mud under the eaves of the old house. The team will soon use the Kansas soil too. They will seek above and below the ground to learn more about the lives of past families and this farmstead. They will use written records as well as the story that is written on the land.

✦ ✦

Day One Site 14RP322 and Historical Archeology

The Martin farmstead has a special scientific name. This site is officially named 14RP322:

14	stands for	Kansas
RP	stands for	Republic County
322	stands for	the 322nd site recorded in Republic County

Each archeological site has its own official number. Each site is unique, and it is part of my job as the team leader to decide how to conduct the research. We want to learn as much as possible about this historical site.

That's why historical archeology is a team effort. In addition to the excavation at the site, we depend on all members of the group to gather information in other ways. The project historian searches the public records and looks at old maps and other documents. The site photography, detailed drawings, and laboratory work with the artifacts are important too. Sometimes we even have a chance to interview a person who once lived at a site.

By the way, historical archeology refers to investigation of the recent past rather than to study of prehistoric sites. The Historic period is very recent at the Martin farmstead (beginning in 1875).

Day Two Informants as Resources

We would not know nearly as much about 14RP322 (the Martin farmstead) as we do now without the help of two informants. Mrs. Florence Martin Cundiff, one of the Martin twins, lived on the farm. She shared her memories, photographs, and other information through interviews and correspondence. Warren Pugh, her nephew (and son of her older sister Rose, thus grandson of Fred and Jesse Martin) was born at the Martin farmhouse and visited there with his family as a child. Both Mrs. Cundiff and Mr. Pugh provided information that shed light on the investigation. Their answers sometimes led to even more questions for the Archeology Team. Mrs. Cundiff answered each new round of questions in writing, adding much to the data. As the Archeology Team learned more from its work at the site, that information was passed on to Mrs. Cundiff, who would then remember even more. It was truly a cooperative effort. Throughout this week's study, you'll hear what she had to say in the section called Florence Remembers.

✦ ✦

Day Three Why Should We Investigate Historical Sites?

Why should we investigate a turn-of-the-century farmstead? Isn't it such a recent part of our history that we can still see many such places in the countryside, in movies, and in family photographs? To decide, an archeologist must ask, " Is this site significant?" In this case that means, "Does the site have the possibility to contribute new or better information about past people, their structures, work, and daily life?" I say, "Yes!"

What do you think? So far, have you learned details of Kansas agriculture that are unlike Kansas farm life today? Are you getting to know the Klima, Lang, and Martin families as individual people rather than as part of an anonymous group called "Kansas Pioneers?" Can you picture the buildings as they once stood at this farmstead? Why do YOU think this site is significant?

✦ ✦

Day Four The Martin Site Is Important

Here's why I think the Martin site and other turn-of-the-century Kansas farmsteads should be studied to preserve this part of our heritage . . .

First, the site is representative of the lifestyle of thousands of Kansans and millions of Americans during the first part of the twentieth century. The buildings and fences and the way they were arranged are typical of this period of time.

Next, the Martins were still relying on horses for cultivation, but the automobile and gas-powered engines were creating changes on the farm. It was largely a self-sufficient economic base, but the farm's surplus produce was sold and transported to larger communities to make it possible for the families to buy manufactured goods. The farm is definitely connected to the larger world around it.

Also, the site could not be studied in the way it was if Mrs. Cundiff and Mr. Pugh had not helped. The information they provided was not or could not be observed through archeology, architecture, or records. Data collected from public records, I have found, can sometimes be misinterpreted. Our informants contributed information about structures no longer evident on the ground's surface. They described architectural and decorative details that were absent, and they gave us much of the "use history" of the site during the years the Martins lived there.

Here's an important part of my answer: The site demonstrates how multiple lines of evidence can be used to more fully understand a historical archeological site. Each source of information (census, county land records, atlases, personal photographs, illustrations, local and regional histories, letters, diaries, interviews, architecture, artifacts, and the present landscape) can supply independent clues and bits of data that can be used to fit together ideas. Those ideas can be tested. We can explain findings and confirm conclusions. The project at 14RP322 created an opportunity to pull patterns of data (such as those in the chart on page 138 in the Farm Records section) from different resources. When we put the various data side by side or stacked it up, we could see a more complete and accurate picture of the site's history.

Day Five I Hope . . .

I hope this study unit will help convince others of the value and need to study turn-of-the-century and early twentieth-century farms and ranches in Kansas. The easy-to-see farmhouses, barns, sheds, windmills, fences, and other features that identify old farmsteads today are rapidly disappearing. We are losing these important parts of the Kansas story to destructive winds, fire, neglect, more cultivation, new or better roads, etc. Even more quickly, however, we are losing the people whose memories and life-force provide the clearest understanding and appreciation of the "recent" past. The information they can provide about individuals, events, and patterns of life is part of our heritage. A team approach can bring about the deeper understanding that is the ultimate goal of historical and anthropological research.

What do you think? Is it more important to spend tax dollars to investigate prehistoric sites or historic sites? If you were in charge, what decisions would you make about how to preserve and study all the cultures that have lived in Kansas?

Crew members excavating X7, northeast of the stone cabin.

Looking southwest at the entryway of the storm cellar north of the stone cabin.

X-UNITS

EMPHASIZE STEWARDSHIP.

DO NOT DIG!

ONLY TRAINED SPECIALISTS SHOULD DIG.

Day One Thirty-Two Holes in the Ground

"X-unit," which is short for "excavation unit," is a square or rectangular hole in the ground of specific size used by archeologists when investigating a site. The location and orientation of the unit is carefully planned and mapped. The depth of the unit is identified layer by layer as different levels. Most X-units at the Martin farm site measured 1 x 1 meter, although some were 1 x 2 meters, and two were 1 x 0.8 meter. The two site maps that follow indicate where the Archeology Team excavated.

Archeological investigation at 14RP322 was conducted in stages. Phase III (units X1 through X13) and Phase IV (through X32) concentrated mostly on the stone cabin and immediate vicinity. Artifacts and features were carefully recorded. Dirt from the units was screened for retrieval of very small objects. Features (important non-artifactual information) were noted and mapped too.

Using the Phase III and IV maps on the following page, ask students to locate various X-units. Help them understand the relationship of the unit to the building or activity in the area. Explain that X-unit locations were chosen with specific questions in mind. This investigation did not attempt to excavate the entire farmstead. Keep this in mind when talking about the objects and features found. Locate the X-units for the objects as you discuss them.

✦ ✦

Day Two Apricot Pits

X-Units: 7, 8, 10, 11, 13, 15, 16, 17, 18, 20, 28, 29, 30, and 32

More apricot pits were found at the site than any other evidence of floral (plant) remains. A total of 4,581 pits and 421 fragments were found. Nearly all had been gnawed by rodents to get at the seed. Archeologists believe that the apricot pits found under the kitchen floor were carried there by rats and mice as a source of food. The high number of apricot pits found on the floor of the north cellar suggest that rodents and possibly raccoons and opossums also deposited these after the cave was abandoned. See Day Two of the Florence Remembers section for information on the use of apricots.

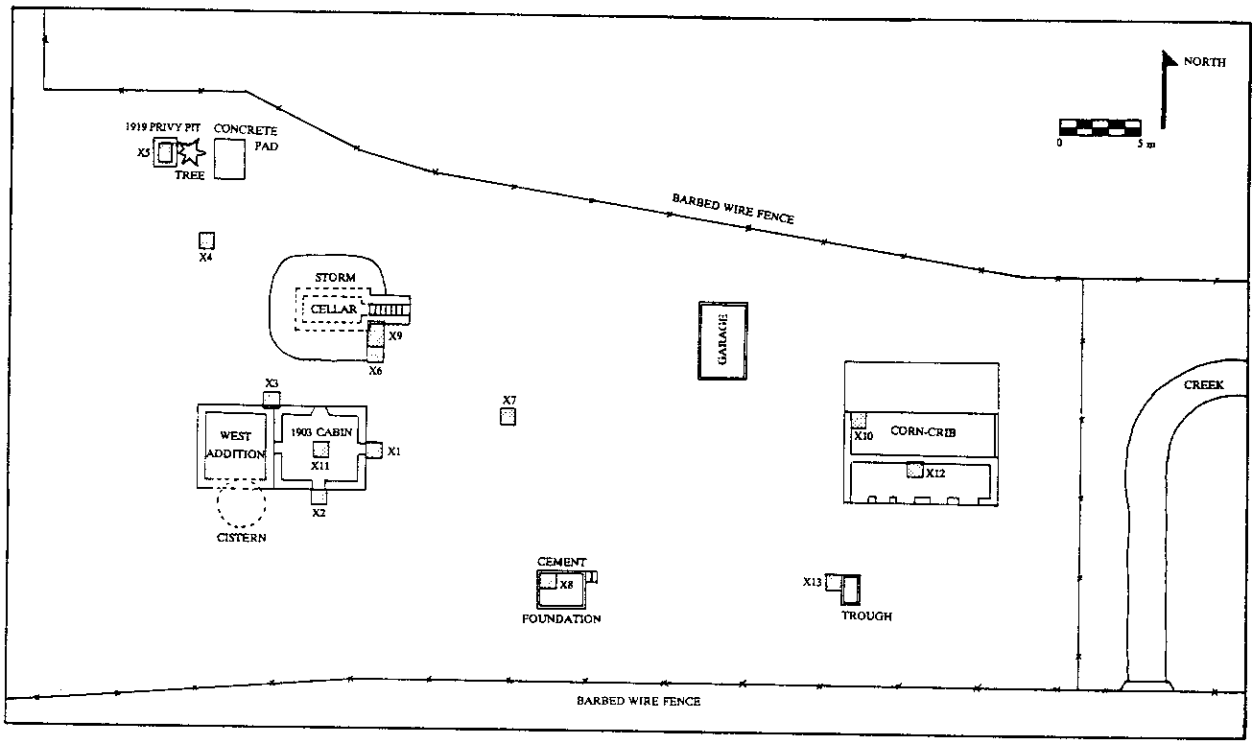
✦ ✦

Day Three Dry Sink and Drain Pipe

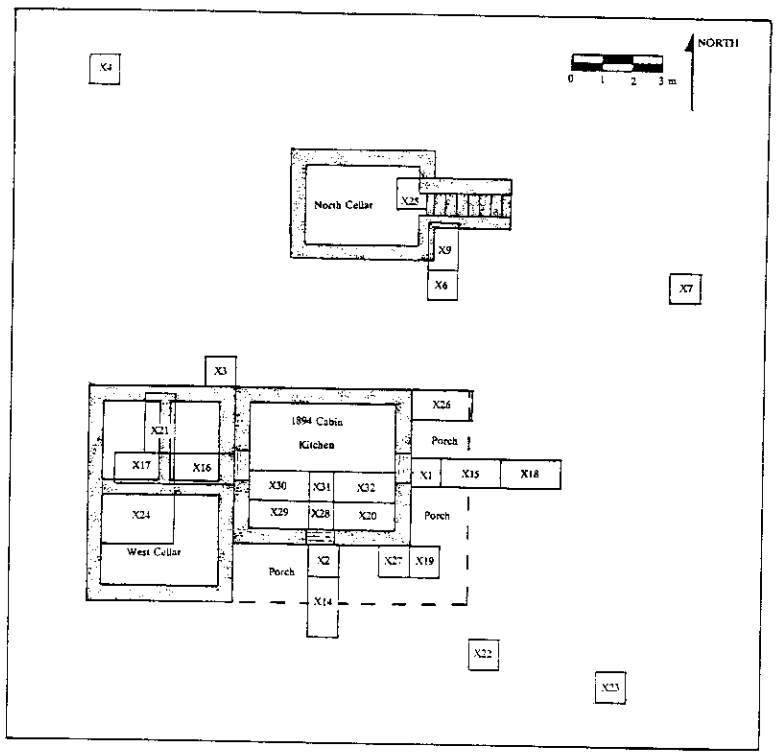
X-Unit: 20

Built by Mr. Martin about 1920, the wooden dry sink was found in 1992 against the east wall of the southeast corner of the stone cabin. "It measured 1.05 m (41 in.) long, 51 cm (20 in.) wide and 80 cm (31.5 in.) high. The north and west sides were made of wainscoting which was nailed to .3 cm (0.5 in.) thick boards attached to the kitchen walls on the east and south sides. A door, measuring 68 cm (26.7 in.) high and 42 cm (16.5 in.) wide, was located 30 cm (12 in.) from the south end. It was hinged on the left side and had a catch on the right side. A water pail was [once] kept under the sink. A drainpipe was laid under the south wall foundation from the sink."

"The drainage pipe was iron and had a diameter of 2½ in. It was 23 cm below the ground surface (bgs) and angled slightly toward the southeast. Nails, glass and bone were recovered from the trench fill."



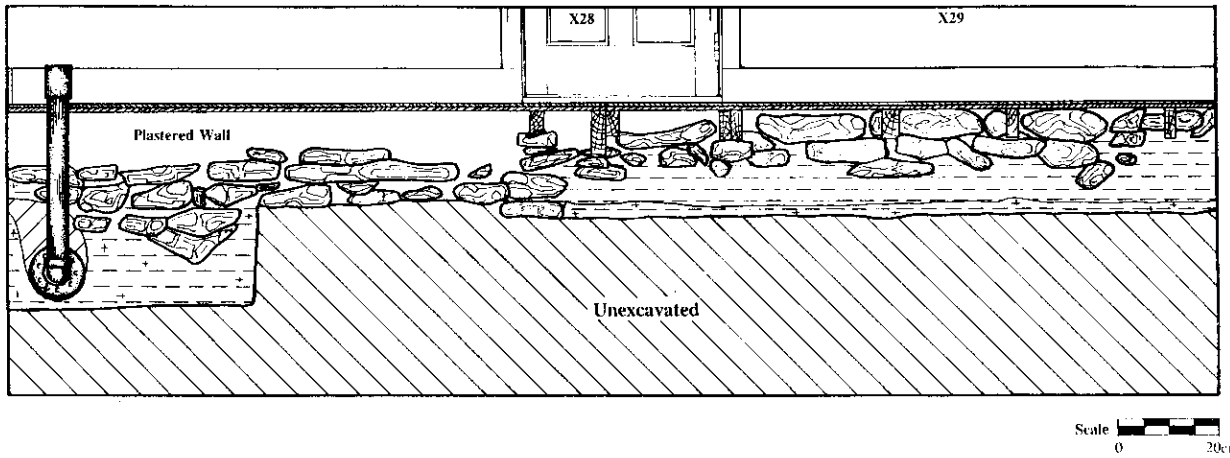
Phase III X-units at 14RP322, testing the Martin farmstead. Enlarged 200 percent, this Phase III map will be approximately the same scale as the Phase IV map.



Phase IV X-units at 14RP322, concentrating on area around farmhouse.

NOTE: The "trench fill" is a feature of the site. It indicated human activity (the digging of the trench for the pipe), but it is not a specific artifact, such as a bottle or a nail.

See Milking Stool in the Project section on page 110 for more information about the sink/pipe association. Also use with Day Three in the Worksheet/Activities/Vocabulary section on pages 119-120.



South profile drawing of X-Units 20, 28, and 29, showing the drain pipe on the east interior wall of the stone cabin.

✦ ✦

Day Four Batteries

X-Units: 5 (limestone vault interior) and 13 (northwest corner of cement water trough)

Two nearly complete, large dry cell batteries were found at 40 to 60 centimeters below ground surface. Each has a ⅞-inch diameter, 5⅝-inch long cylindrical carbon core. Around the core is a cylindrical body of ammonium chloride with a diameter of 2 15/16 inches and a length of 4¾ inches. The whole body is enclosed in a thin zinc can. The core stands ¾ inch above the body and ⅛ inch below the base. The top of the core is wrapped in card stock and has a thin ferrous cover. A ⅛-inch diameter copper rod is in the top of the core.

The tops of two more cores and a carbon core fragment were also found at the site. The batteries were probably used in the radio kept in the Martin's kitchen.

Students could try measuring and describing a modern battery. Discuss the longevity of the batteries found at the site, disposal of this and other materials, and effects on the environment.

✦ ✦

Day Five New Questions

Archeologist Chris Schoen and his crew came away from the investigation with lots to think about. Consider just two of the new questions they continue to ask:

✦Why were so few horse-related artifacts discovered? Four horseshoe nails, a D-ring, and a harness buckle do not represent the tremendous importance of horse-power on the farm over more than 75 years of operation.

NOTE: Rivets, such as those used on leather harness, were found inside the blacksmith shop. What other structure and artifacts might show how important horses were? Archeologists search for subtle clues as well as artifacts.

✦Preservation of fruits and vegetables was a major activity in the farmhouse kitchen. It took a lot of canning jars, "rings" and lids (to seal the jars), and caps to contain a winter's worth of food—multiplied by the many years of food preservation at this site. The excavation revealed only one glass canning jar, some glass lids (fragments and completes), and rubber gasket fragments. What structures represent food preservation at the site? What kinds of utensils and containers would have been necessary for food preservation? Talk about the many artifacts that any archeological site **does not** include and how this affects interpretation.

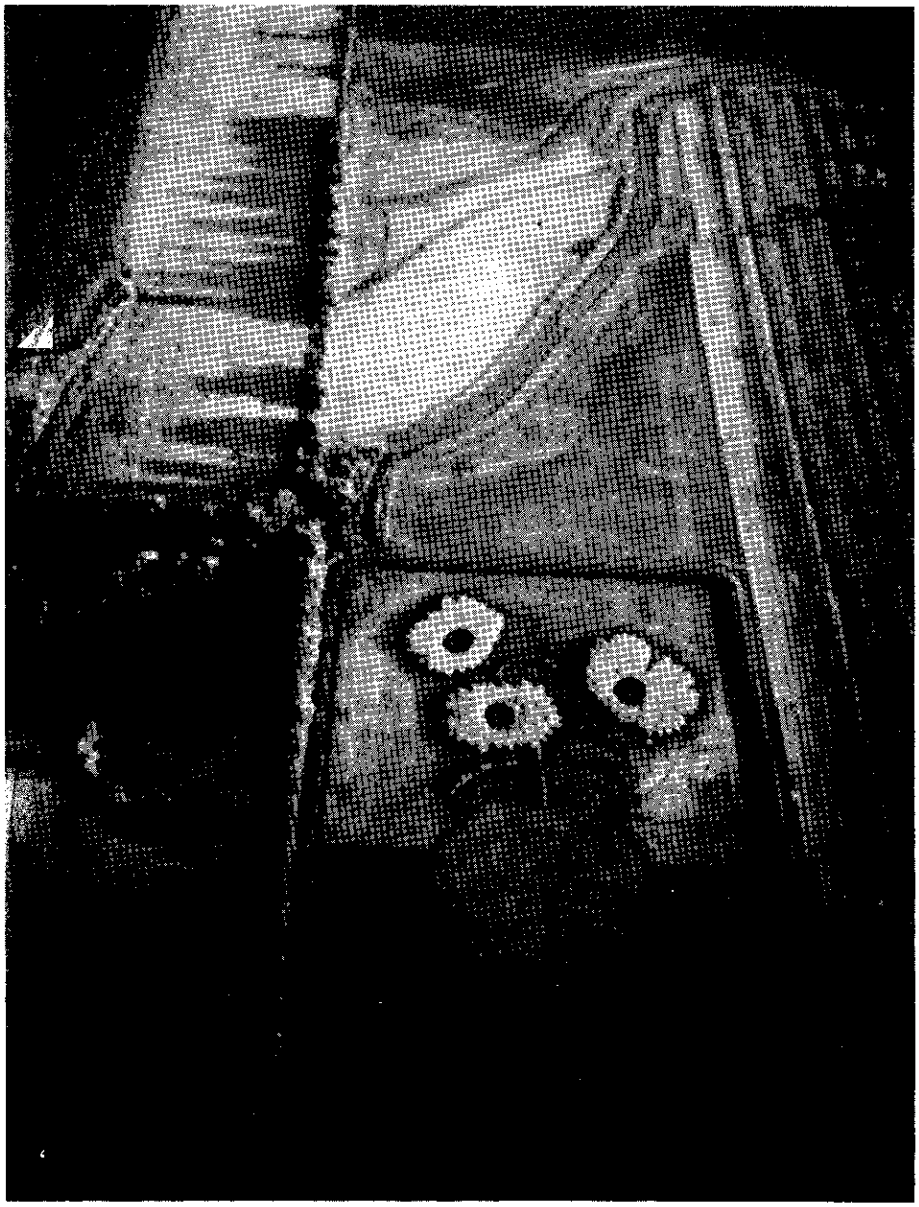
NOW ISN'T THAT STRANGE?

Day One

Homesteading required plowing the tough prairie. It was called "sod-busting," and it replaced the native grasses, forbs, and wildflowers with domesticated plants. In 1986 artist Stan Herd recreated Van Gogh's "Sunflowers" in a Kansas field. In a sense he asked us to consider the reverse of agriculture's processes. He used a farmer's space and equipment to create his "painting with plants." He splashed a huge bouquet of sunflowers across the land, where once they bloomed naturally.

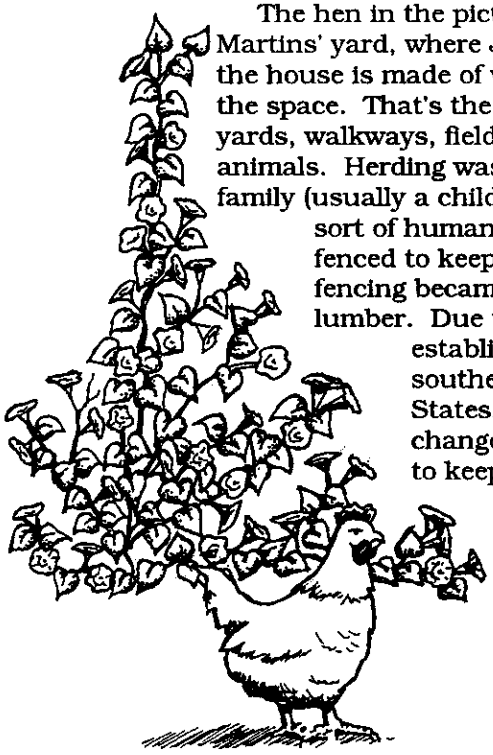
How does Herd's creation differ from the original "canvas?" If the "sunflowers" stand for the native land, what could the "vase" represent?

NOTE: Today some Kansas farmers raise commercial crops of sunflowers, mostly for their oil.



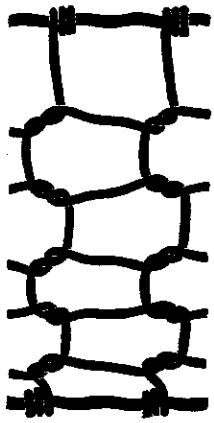
"Sunflower Still Life"
(Photograph by Daniel Dancer, reproduced courtesy of Stan Herd).

Day Two



The hen in the picture on page 87 is an invader. She is trespassing in the Martins' yard, where Jesse keeps her roses and other flowers. The fence around the house is made of woven wire, erected to keep the hen and all her friends out of the space. That's the "old fashioned" purpose of an American fence—to protect yards, walkways, fields, and gardens from the invasion of loose livestock and wild animals. Herding was a common practice for a long time, with a member of the family (usually a child) watching over wandering cattle or sheep or even geese as a sort of human fence. A farmer was legally responsible for keeping fields fenced to keep animals out. In the nineteenth century affordable wire fencing became the standard, replacing stone, split timber, and sawed lumber. Due to cheaper, better wire and increased crowding in the established parts of the eastern, southern, and middle western United States, the fencing standard changed. New laws required farmers to keep their stock in—with fences.

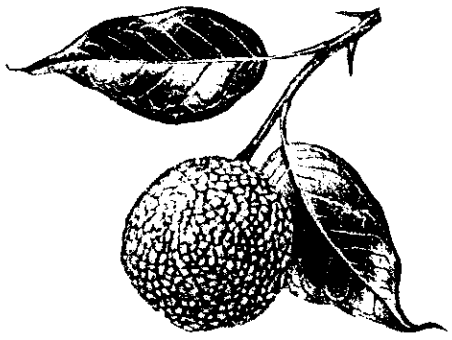
NOTE: Woven wire (also called net wire) helped sheep raisers as it kept out predators, such as wolves and coyotes. Also, Kansas fencing laws were enacted much later than similar laws in the eastern United States. Fencing played a role in bringing about the end of the big cattle drives to and through Kansas.

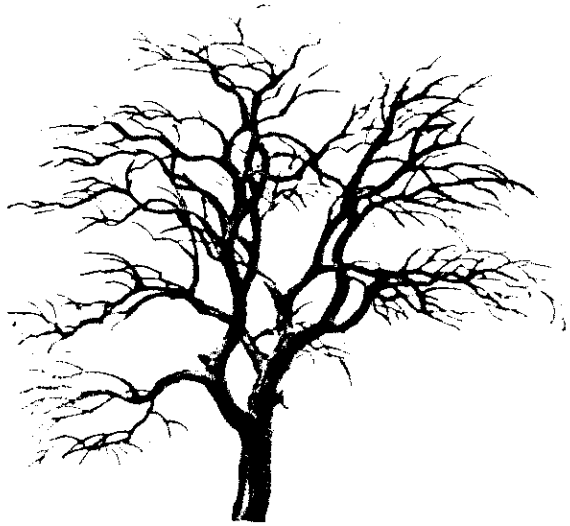


Woven or net wire.

Day Three

Many farmers planted hedgerows of Osage Orange trees to make living fences. The tree's habit of low branching, intertwining limbs created effective barriers. Over the years, as the hedgerows grew and more rods of fencing were needed, the Osage Orange became a primary source of fence posts on which to string barbed wire. So the new fencing method was the child of the old.



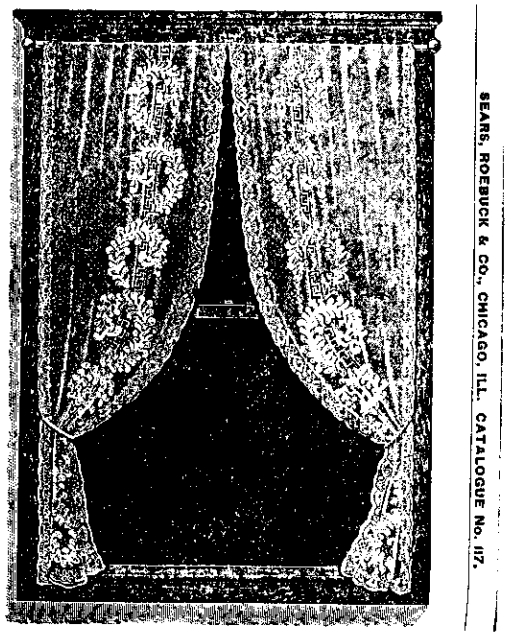


Osage Orange (*Maclura pomifera*).

NOTE: The Greenhorn limestone of the stone cabins on the Martin farm is the same stone many Kansas farmers substituted as fence posts on the Plains. The stone is commonly known in Kansas as "postrock."

Day Four

Rural families carefully transported or saved to buy the household items that would signal the gracious living of "civilization." Jesse Martin's lace parlor curtains put the family's "best foot forward," representing the refinement generally associated with city life. Homemade curtains were relegated to the upstairs bedrooms; they were "country." Today's booming home decorating business presents Country Style in a way no farm family would have dreamed. Featuring agriculture's tools and implements, chicken crates and feed sacks as decorative items, today's Country Style brings the farmyard inside, where real country people once were determined to keep it out.



Day Five

Students can find other examples of how time changes a culture's view of the past and the artifacts of its yesterdays. Change over time is a major focus of archeologists' investigations.